

TWENTY-THIRD

ANNUAL REPORT

OF THE

Medical Officer of Health

TO THE

GLOUCESTERSHIRE

COMBINED

Sanitary District,

FOR THE YEAR 1895.

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Gloucester.

1896.

# THE GLOUCESTERSHIRE Combined Sanitary District

*Comprises the following Sanitary Authorities: \**

**RURAL:** CHEPSTOW, CHIPPING SODBURY  
CIRENCESTER, GLOUCESTER,  
LYDNEY, TETBURY, AND  
WESTBURY-ON-SEVERN.

**URBAN:** AWRE, CIRENCESTER, NEWNHAM,  
TETBURY, WESTBURY-ON-SEVERN.

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AREA: 318,558 ACRES. POPULATION IN 1891, 96,363.

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**Medical Officer of Health:**

*FRANCIS T. BOND, M.D., B.A. LOND., F.R.S.Ed*

RESIDENCE: GLOUCESTER.

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\* The Thornbury Rural Sanitary District, which in previous years was included in the Combined District, is not so now, though it has the same Medical Officer of Health. The Report for this District is published separately.

TO THE RURAL AND URBAN DISTRICT COUNCILS  
FORMING THE  
**Gloucestershire Combined District.**

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GENTLEMEN,

I HAVE the honour to submit for your consideration my Annual Report on the general Sanitary condition of the Combined District for which I act as Medical Officer of Health, and also of the several constituent portions of it, for the year 1895, being the twenty-third which I have made since my appointment to it.

In my Reports for the two preceding years I have been able to congratulate the Authorities of the District on the marked decrease which was exhibited by the mortality from infectious disease generally throughout the district during that period. If I am unable to speak quite as decidedly of the results of the past year, it is mainly in consequence of the rise which has taken place in the mortality from one disease only, Continued Fever, the other four forms of epidemic disease by which infant life especially is so largely ravaged, viz., Scarlet Fever, Measles, Whooping Cough and Diphtheria, having been less prevalent than they were in 1894. The increase in the mortality from Continued Fever is the more notable coming as it does in immediate succession not only to a year in which the deaths from this type of disease had fallen to the unprecedented number of two, but to a gradual decline in the same class of mortality which has been going on for more than ten years past. We have, in fact, to go back to 1883 to find a fever mortality which equals that of the past year. This rise in the mortality from Continued Fever during the past year is attributable to two causes: first, to a general prevalence of the disease throughout the

greater part of the Combined District during the latter half of the year, such as I have not known for many years past. This increase in a disease which appeared to have been got under effective control, and which was manifested mainly in cases of a sporadic character, occurring principally in isolated houses in the more rural parts of the Combined District, is the more striking because it appears not to have been by any means confined to this District, but to have been very common in other parts of the kingdom. So much so that its cause has been a subject of considerable discussion. That it has not been even largely due to the ordinary causes to which we have been in the habit of looking for the explanation of the origin of this disease is not only the impression which I have myself been led to form, but the same conviction appears to have been generated in the minds of others who have had similar experience with myself. And the suspicion which has grown up in my own mind as well as in that of others is that a considerable proportion of these cases which, for want of a better conception as to their true character, have had to be classed as cases of Typhoid Fever, have exhibited such a suspicious resemblance to the abdominal type of Influenza that there is grave reason to doubt whether they have not really been more allied to that disease than to anything else. Several facts have particularly conduced to strengthen this conviction in my own mind. One is the complete absence in many of the cases of any sanitary defect in or about the premises on which they have occurred, or in connection with the habits of the persons attacked, which could in any way be associated with the outbreak. Another is the age incidence of most of the cases, so many of them being adult men or women. A third is the very slight tendency which the disease in most cases shewed to spread. And a fourth is the actual existence about the same time and in the neighbourhood of the cases, of others which were actually diagnosed and treated as cases of Influenza, with considerable justification for such a course.

I have referred to this obscure relationship between Influenza and Typhoid Fever in previous Annual Reports, but it has never before been so strongly impressed upon me as it has during the past year. And I feel it to be of the more importance to emphasize it here because so material an increase of a disease which has hitherto been looked on as the test of good sanitary administration, coming as it has done after a continuance for some years of a steady decline in that disease, naturally suggests the question whether it may have been caused by any default of supervision or action on the part of those to whom the protection of the public health is entrusted. I shall have more to say on this subject in a further stage of this Report, in which I shall have to deal with the specific outbreak at Lydney, to which so large a proportion of the general mortality of Typhoid Fever during the past year is to be ascribed.

In accordance with the plan which I have adopted in all my previous Reports, I proceed to deal with the

GENERAL VITAL STATISTICS OF THE DISTRICT,  
and especially with the prevalence of the more important forms of infectious disease in it.

AREA AND POPULATION.—The only change which has taken place in the area of the District during the past year has been the addition to the East Dean portion of it of the Parish of Ruardean, which has been transferred to it from the Ross Rural Sanitary District, involving an addition of 1,630 acres and a population of 1,284.

At Lydney, Cirencester and in the suburbs of Gloucester, there has been a steady increase of new houses, giving relief in some degree to previous congestion of the population in those districts, though in many cases they serve only to augment the existing population by attracting new residents into the locality.

BIRTHS AND THE BIRTH-RATE.—The total number of births registered in the Combined District during the past



year was 2,580, being a slight increase on that of the preceding year, and giving a birth-rate of 26.7 per thousand. The lowest birth-rate was in the Cirencester Urban District, 20.9, but that of the Tetbury Rural, 21, was only a trifle higher, though, curiously, the birth-rate of this latter district was in 1894 the highest in the whole district, 36.2, whilst that of the Awre Urban District, which was the lowest, 19.3, in 1894, was the highest, 38.0, in 1895. These vagaries of prolificity are no doubt due in some degree to the accidental fluctuations which are so apt to disturb the statistics of small numbers, but they are possibly attributable also to periodic influences, upon which a philosopher like Captain Shandy might discourse with some ingenuity. The most noteworthy fact in connection with this subject is the evidence which seems to be afforded that the decline in the birth-rate of the District which, as will be seen from the following table, has been going on for the last few years, appears to have now come to a standstill.

DEATHS AND THE DEATH-RATE.—The total mortality from all causes in the Combined District during 1895 was 1,635, being an increase of 103 on that of 1894, and giving a death-rate of 16.9 per thousand, which is the highest, with one exception, during the last twelve years.

The relations both of the birth and death-rates during this period are shown by the following table :—

1895	...	Birth-rate, 26.7	...	Death-rate, 16.9	per 1000.
1894	...	„ 26.8	...	„ 16.2	„
1893	...	„ 27.8	...	„ 15.1	„
1892	...	„ 27.2	...	„ 16.4	„
1891	...	„ 29.6	...	„ 18.8	„
1890	...	„ 28.1	...	„ 14.8	„
1889	...	„ 29.5	...	„ 15.4	„
1888	...	„ 27.4	...	„ 15.1	„
1887	...	„ 28.2	...	„ 15.6	„
1886	...	„ 28.8	...	„ 15.8	„
1885	...	„ 28.5	...	„ 15.9	„
1884	...	„ 28.5	...	„ 16.0	„

## ZYMOTIC MORTALITY.

The separate statistics of the several forms of zymotic disease for the Gloucestershire Combined District for the year 1895, are as follows :—

### SMALL POX.—

Mortality in 1895	..	...	...	...	...	...	0
„ „ 1894	...	...	...	...	...	...	0
Highest Mortality in last twenty-three years (1873)	...						33
Lowest do. (1880-3-4-9, 1890-1-2-4-5)	...	...	...	...	...	...	0

The unfortunate experience through which the City of Gloucester is passing at the time of the drafting of this Report, lends a special interest to the subject of Small Pox. For the past twenty years I have felt it my duty in every Annual Report to refer to the perilous condition in which not only the Combined District, but also nearly the whole of the County of Gloucester has stood from the want of any adequate means of isolating cases of Small Pox. So far as the borough of Cheltenham is concerned, that danger has for some years been removed by the excellent resources for this purpose placed at the disposal of the Sanitary Authority by the trustees of the Delancey Hospital. But, in no other part of the county, except in those portions of it which are within the City of Bristol and the Evesham Rural District, and, to a limited extent, in the Cirencester Urban and Rural Districts, where a small Isolation Hospital exists, which has, on an emergency, been used to deal with a limited attack of Small Pox, has there been any provision for meeting a serious outbreak of this most infectious disease. From the date of the great wave of it which swept over the county, in common with the rest of the country, in 1873, until the present time, limited outbreaks have occurred, as a result of the casual introduction of the infection into the District, chiefly by tramps, hailing from Birmingham on the one side and from South Wales and Bristol on the other. The existence of the infection in these centres during the year 1894, led me to emphasize in my Report for that year more strongly than I

usually had done, the warning I had repeatedly given before as to the danger of our being caught in our still unprepared condition by another of these outbursts, which an accidental combination of circumstances might easily fan into a general conflagration. The remarks which I then made have been so strikingly illustrated by the severe logic of events that, though the general account of the present outbreak will be more appropriately deferred until the Report for this year comes to be written, I may be pardoned for quoting them here, as a justification of the forecast which they offered and which was so soon to be fulfilled.

I observed that "the absence of any effectual means of isolating Small Pox in any part of the Combined District, except, to some extent, in the Cirencester portion of it, might be looked on with some equanimity if vaccination were effectually enforced in all parts of it. Unfortunately, however, as I have had to note in successive Reports during the last few years, there is an increasing tendency to neglect the enforcement of primary vaccination, and, it is to be feared, to the neglect of re-vaccination also. During the greater part of the last half century the victims of Small Pox have been found almost exclusively amongst the adolescent or adult members of the community, who had either not been vaccinated in infancy, or who had outgrown the limited protection which primary vaccination can only be calculated on affording. But of late years the history of outbreaks of this disease shows an increasing number of cases of young children, the mortality amongst whom is proportionately very large. This is the result of the neglect of infantile vaccination ; and it is as certain as anything can be in human affairs, that although a community in which infantile vaccination has been systematically neglected, as is the case in some parts of the County of Gloucester, may go on for some years, either by good luck escaping the importation of infection into it, or stamping it out, at considerable cost, even under favourable circumstances, when it is imported, a time will come sooner



or later, when the infection will be introduced under such circumstances that it cannot be so summarily eliminated. Then will be repeated the experience of Leicester, Sheffield, and other towns in which vaccination has been neglected and epidemics have occurred in recent years; there will be a general rush on all sides to be vaccinated, and there will be a large proportion of fatal cases of unvaccinated children. There are some grounds for hoping that the Report of the Vaccination Commission, which has been so unaccountably delayed, will ere long be issued, and the excuse for the doing nothing policy, on which so many Vaccination Authorities have hitherto relied, will then be removed, and some decided course will have to be adopted."

It has been well said that "though the mills of God grind slow they grind very sure." Retribution follows neglect of duty as surely in the case of communities as it does in that of individuals. Unfortunately the voice of the sanitary prophet, like the forebodings of his predecessors of old, too often appears to awaken no more sense of responsibility amongst the crowd, who are careful and troubled about other things, than if it were that of one crying in the wilderness. But he can calmly await the fulfilment of his warnings, conscious that, unlike those of olden time, they are grounded not on inspiration, but on the surer foundation of experience, and that in giving them he has observed the wise canon of the cute Yankee—"never to prophecy unless you know!"

Had the first line of defence against Small Pox, that of infantile vaccination, been kept up in Gloucester as it ought to have been during the past ten years, it is as certain as anything can be that the sudden explosion of infection which took place in the end of February, when it fell upon the unvaccinated children of the Widden Street Board School, would never have occurred; that though the fire might have smouldered for a time amongst the imperfectly protected youths and adults of the district in which it originated, it would have been gradually stamped out; and

that Gloucester would have been saved all the misery, loss of life and heavy burden of cost which it has had and will still have to bear for a long time to come. Would that the responsibility for this terrible calamity could be adequately brought home to the small knot of mischievous fanatics by whom it has been primarily caused, and who, notwithstanding the desperate and futile efforts they have made to cloud their culpability by raising all sorts of extraneous issues, have the assurance of knowing that they have been at last *found out*.

As only four cases of Small Pox have occurred in that portion of the suburbs of Gloucester which is in the Gloucester Rural District at the close of the year, in connection with the great epidemic which had then already commenced in the city proper, the general consideration of that epidemic, so far as it has affected the Combined District, must be deferred until a future Report. But it may not be out of place here, in view of the forthcoming Report of the Royal Commission on Vaccination, to express the hope that that Report will deal exhaustively with one matter to which I have on more than one occasion referred in previous Annual Reports, and which the experience of the present epidemic has strikingly illustrated, and that is the anomalous, inconvenient and detrimental position in which the control of Small Pox is placed from vaccination being in the hands of Boards of Guardians. That, whilst the machinery for the control of all other forms of infectious disease has been for more than twenty years entrusted to Sanitary Authorities, that for controlling Small Pox has been retained in the hands of an Authority whose function is merely to administer the Poor Laws, is one of those anomalies which only our truly British disregard of coherence in legislation would have tolerated so long.

How serious are the difficulties which such a dislocation of sanitary organization entails in such a crisis as that through which Gloucester is passing at the time of drafting this Report, no one can appreciate who has not been actually

engaged in the struggle to cope with the rapidly rising tide of infection by which the city has been overwhelmed. But what is patent to everyone, is that not only this epidemic, but others of a less fatal character which have preceded it in other places, have been largely due to the administration of the vaccination law being delegated to an Authority that is particularly amenable to political and other agitations, and that has little opportunity for acquiring that sense of sanitary responsibility which the continuous charge of the public health develops. There can be no question to those who have had experience in these matters, that the cause of vaccination has been greatly prejudiced also, by the retention of an organization for carrying it into effect, which is in many respects very defective and out of date. Had this branch of sanitary administration been in the hands of Sanitary Authorities, it would, no doubt, long ago have been re-cast in conformity with the progress which science and practice have made in regard to it. It has now got quite fossilized, and it will be some compensation for the loss of life, heavy outlay and general misery entailed by the Gloucester epidemic if it should strengthen the hands of the Royal Commission to deal comprehensively with this matter.

#### SCARLATINA.—

Mortality in 1895	...	...	...	...	...	...	3
„ „, 1894	...	...	...	...	...	...	3
Highest Mortality in last twenty-one years (1876)	...	...	...	...	...	...	113
Lowest ditto (1890)	...	...	...	...	...	...	1
Number of cases notified in 1895	...	...	...	...	...	...	108
„ „ „, 1894	...	...	...	...	...	...	313

Although the mortality from Scarlatina was the same last year as it was in 1894, the actual cases of the disease which were reported were only a third of what they were in the latter year. In that year nearly half of the cases were in the East Dean District, the Cirencester and Chipping Sodbury Districts coming next, with nearly fifty cases in each, and Gloucester Rural not far behind, with thirty. This year the



disease has been almost extinct in East Dean, only 17 cases having been notified in it, whilst the Cirencester Districts exhibit precisely the same number (45) that they did in 1894. The numbers in the Chipping Sodbury District have declined from 46 to 13, and in the Gloucester Rural District from 30 to 20. It is important to note in connection with these facts that of these four sanitary districts the Cirencester Rural and Urban have alone taken any steps to isolate cases of Scarlatina; in the Gloucester and Chipping Sodbury Rural District, as in all other parts of the Combined District, cases of this disease have been dealt with by quarantining alone. It might be assumed from these facts that the removal of cases of Scarlatina occurring in a rural district to an isolation hospital is of doubtful advantage, and there is something to be said for this contention in regard to a mild epidemic, such as that which has of late years prevailed in the Combined District. Where the infection can be fairly isolated at the home, as it generally can be in rural localities, by practicable quarantine arrangements, and especially by care on the part of the conductors of elementary schools not to admit children of whose condition there is any doubt, the disease is not by any means a difficult one to control, and, except in first cases, occurring in large families, or where the attack is a severe and consequently the infection a virulent one, or where there is some special reason for avoiding quarantine, the argument in favour of removing cases to the hospital must rest upon general considerations of expediency. Nor must it be forgotten in connection with this question that, so long as we are unable to protect children from Scarlatina by a process of vaccination, as we can in the case of Small Pox, every child who escapes an attack by the isolation of a neighbour's child who has taken it, simply adds to the previous stock of unprotected children, and as this gradually increases, a time must arrive, sooner or later, when the mass of unprotected humanity in any given locality will become so large that it will hardly be possible to guard against the sudden lighting



up of an epidemic under such conditions as may make it very difficult to control it. For, these conditions will be strictly analogous with those in regard to Small Pox, which have until lately prevailed in towns like Gloucester, where vaccination has been neglected.

A mild epidemic of Scarlatina is really a protective process, somewhat comparable to what a general inoculation of Small Pox was in pre-Jennerian times. Unless it can be assumed that it is practicable to entirely stamp out the infection of Scarlatina from this country, which even the most sanguine sanitarian can scarcely hope to attain by our present resources, it is a serious question whether anything is gained by attempting to do more than to keep it under good control. To do this properly we require to have a hospital at our command : but it does not follow because we have one that it is expedient to send every case of the disease, however mild, to it. Ample experience shows that although we occasionally meet with eccentricities of infection which it is difficult to explain and against which it is impracticable to guard, very simple precautions, in the way of cleanliness, especially in the use of boiling water and free exposure to fresh air and sunshine, will suffice to extinguish the risks of the spread of the infection of Scarlatina from one household to another in the country, where we can obtain the loyal co-operation of the heads of the family in carrying this out, and of schoolmasters and mistresses in excluding the affected children from the school until this has been done.

The fact, therefore, that Scarlatina has not diminished during the past year in the Cirencester Districts where most of the cases have been hospitalized, whilst it has done so in East Dean, Chipping Sodbury and Gloucester Rural, where this has not been done, affords no argument against the utility of the hospital in one case and for not providing one in the others, but is only an illustration of a course of events which, under fairly conceivable conditions, might have had a very different outcome.

## MEASLES.—

Mortality in 1895	...	...	...	...	...	2
„ „ 1894	...	...	...	...	...	19
Highest Mortality in twenty-one years (1888)	..	...				84
Lowest ditto	„		(1895)	..	...	2

The mortality from Measles has this year fallen to an exceptionally low level. During the past three years it has exhibited, as will be seen from the accompanying diagram, a much smaller amount of oscillation than it has previously displayed. Fluctuations of between 10 and 70 cases per annum have occasionally occurred in former years: but it looks as if, in the case of this disease, which has been in the past one of the chief scourges of our juvenile population, as in that of Scarlatina, we have succeeded in putting a distinct curb on its ferocity. Time only will show whether that surmise is well founded or not. If there is any probability of its doing so, this is an argument against the course which has been in some quarters so strongly urged, of making the notification of Measles universally compulsory. Hitherto this course has not been adopted in the Combined District: and, irrespective of other arguments against it, experience seems to show that the reasons in its favour are being weakened by time rather than otherwise.

## DIPHTHERIA AND CROUP.—

Mortality in 1895	...	...	...	...	...	11
„ „ 1894	...	...	...	...	...	19
Highest Mortality in last twenty-one years (1884)	...					65
Lowest ditto	„		(1895)	...		11
Number of cases notified in 1895	...	...	...	...		31
„ „ 1894	...	...	...	...		34

In this group of diseases, again, the results of the past year are unusually satisfactory in regard both to case notification and mortality. Nothing like an epidemic has occurred in any part of the Combined District. The outbreaks have been in all cases both sporadic and limited in character, some of them of very doubtful identity, and generally very

amenable to control. I have so often in previous Reports referred to the obscurity of the relations of Diphtheria with Quinsey on the one hand and with Scarlet Fever on the other, and to the difficulty which so often occurs in precisely distinguishing the middle term of this threefold manifestation of throat mischief from the other two, that it is unnecessary for me to say anything on the subject here. The result of the large number of investigations made during the past year, both in the diagnosis of doubtful cases of this disease and of its treatment, unquestionably confirms the general opinion which had been previously forming that bacteriological examination is as valuable in the identification of the disease as serum injections are in its treatment, provided that the latter are only exhibited sufficiently early and in proper quantities, and that the former are made with sufficient care.

#### WHOOPING COUGH.—

Mortality in 1895	...	..	...	...	...	...	2
„ „ 1894	...	...	...	...	...	...	19
Highest Mortality in last nineteen years (1886)	...	..					56
Lowest ditto				(1888)	...	...	5

As I indicated in my last Annual Report we were at the close of 1894 approaching, if not actually in the trough of one of the periodically recurring waves of this disease, from which it was certain that we should steadily if not speedily emerge, to mount again to another crest. Fortunately the fluctuations of the disease during the past twenty years have been less violent than those of the other members of the zymotic group to which reference has been previously made and if we could arrange that children should only be exposed to its infection during the spring and summer its severity would be so reduced that it need give us but little concern. Indeed, there would be a good deal to be said for a systematic inoculation of the infection at these seasons amongst all fairly healthy children who had not previously taken it, and one cannot but feel some sympathy with mothers who at such seasons express the not unreasonable desire that their offspring would “take the disease and have done with it.”

## CONTINUED FEVER.—

Mortality in 1895	...	...	...	...	..	..	17
„ „ 1894	...	...	...	...	...	..	2
Highest Mortality in last twenty years (1875)	...						57
Lowest ditto				(1894)	...	..	2
Cases notified	...	...	...	(1895)	..	...	61
„ „	...	...	...	(1894)	...	...	22

From the above summary it will be seen that there were three times as many cases notified under the general designation of “typhoid” in 1895 as there were in 1894, and that so far as we can judge of them by their mortality, the prevalent type of the disease was severe in a much higher proportion. I have in a previous portion of this Report intimated that this large increase of a disease which appeared to have been reduced almost to zero, and the gradual suppression of which during the past twenty-three years is a noteworthy result of improved sanitary administration in the Combined District, is traceable to two causes—first, to a remarkable augmentation of sporadic cases in various unconnected localities, for which it is not easy to account, and, secondly, to a serious epidemic of the disease which took place at Lydney, the details of which will be found in the special report of that sub-district. I have, when referring previously to this, the most unsatisfactory feature of the sanitary record of last year, indicated some characteristics of most of the cases occurring outside the Lydney outbreak, which seem to distinguish them from the ordinary type of the disease, viz.: that they occurred so largely amongst adult males, were so slightly infectious and were not traceable to any of the causes which are generally accepted as tending to diffuse the typhoid infection. It is, therefore, unnecessary for me to dwell longer on this aspect of the matter here, and I will only say here that until we can obtain and apply to cases of assumed typhoid a test as trustworthy and precise as that of the recognition of the Klebs-Löffler *bacillus* in Diphtheria, it will be impossible to satisfactorily assess the true value of these cases as indicators of preventible mischief.



In dealing with the subject of Small Pox I have thought it not inappropriate to quote an extract from my last Annual Report, and in concluding this brief reference to the subject of Typhoid Fever a corresponding quotation from the same Report appears to be apposite. In speaking of the phenomenally low mortality experienced from typhoid in the Combined District in 1894, I observed that "it would appear, therefore, that so far as this form of preventible disease is concerned we have nearly reached the limits of complete success in extirpating it from the District; and the maintenance of such a condition might be reckoned on with confidence if, in the first place, we could insure ourselves against the importation of infection into the District, which is impossible; and if, in the second, we could rely on being able to isolate any case, whether imported or not, directly it was detected. Unfortunately this latter condition, though a perfectly practicable one, is at present unrealised in the greater portion of the District, and, so long as this is the case, we must be prepared for occasional local outbreaks, arising from imported or accidental infection, such as that which occurred at Cinderford two years ago." How fully this forecast has been illustrated during the past year by the outbreak at Lydney will be seen in the Report on that district, where the incidents of that outbreak are dealt with.

#### DIARRHŒAL AFFECTIONS.—

Mortality in 1895	..	...	...	..	...	...	19
„ „ 1894	...	...	..	...	...	...	10
Highest Mortality in last twenty years (1876)	...	...					56
Lowest ditto				(1894)	...	...	10

The coincidence exhibited by the very low death-rates both from Typhoid Fever and Diarrhœal Affections in 1894 and by the corresponding increase in both during 1895, suggests, naturally, that in both cases the fluctuation has been due to a common cause. To some extent this is probably true, and a reference to the diagram sheet will show that although the correspondence between the wave lines of the two affections

is by no means exact, there seems to be some sort of relationship between them. The connection between infantile diarrhœa and summer temperature is a well-recognised one, but, although Typhoid is also in a large degree a disease of high temperatures, as is shown by the extent to which our army is attacked by it in tropical climates, the fact that a considerable number of the cases in which Diarrhœa is registered as the cause of death have no obvious relations to temperature makes it difficult to say how far the fluctuations in these two affections are related to one another. Moreover, the numbers under consideration are too small to make deductions from them trustworthy.

#### SEPTICÆMIC AFFECTIONS.—

					In 1895.			In 20 years.	
					Total Deaths.			Highest.	Lowest.
								No.	No.
ERYSIPELAS	...	...	0	...	...	...	...	6	0
PUERPERAL FEVER	...	...	4*	...	...	...	...	21	1

The mortality from both of the above forms of septic disease during the past year has been so trifling as not to call for any special notice ; and the fact that out of the 47 cases of Erysipelas notified not one appeared to be due to any condition with which Sanitary Authorities can deal, may be taken as an indication how little real value such notifications have. Nor did the four deaths from Puerperal Fever present any evidence of being attributable to any but purely personal causes.

#### ACTION TAKEN DURING THE YEAR TO PREVENT THE SPREAD OF INFECTIOUS DISEASE.

I am glad to be able to report that the number of Sanitary Authorities forming the Combined District who had not adopted the Infectious Diseases Notification Act has now been

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\* By an oversight which has only been detected since the statistical tables were printed, two cases of Puerperal Fever have been omitted from the column for that disease in Table IV.

reduced to one, the other Gloucestershire Councils, who adopted the Act at no long time after it came into effect, having been joined during the past year by the Lydney, Tetbury Rural and by the Tetbury Urban Councils. This leaves only the Chepstow Rural Council without the help which the Act gives in obtaining early information as to the existence of infectious disease, and I trust that it will not be long before the Council will see the wisdom of putting themselves in line not only with the other members of the Combined District, but with the great majority of Sanitary Authorities in all parts of the kingdom. They have recently had a striking illustration of the disadvantage of not having adopted the Act in the fact, which I have brought under their cognisance, of an outbreak of Small Pox in their district which had been in existence some days before I learned, almost by accident, of it. Fortunately, as it happened, no serious consequences followed the delay in action which was caused by this want of knowledge, but it might have easily occurred that a considerable spread of the infection resulted from it, as was the case a few years ago from a similar incident at Caldicot.

In regard to the provision of hospital accommodation for the isolation of cases of infectious disease, I have again no progress to report. The hospital provided jointly by the two authorities at Cirencester and the small one at Soudley, in the East Dean Rural District, being the only ones available in the Combined District. Negotiations, however, which were commenced more than twenty years ago between the Gloucester Rural and Urban Authorities, but without leading to any practical result, have been re-opened during the latter part of the year, and a general desire on the part of the Urban Council to remove their hospital from its present site and to accept the co-operation, so long offered, of the Rural Council in providing a joint hospital elsewhere was expressed.

I have in my two last Annual Reports strongly indicated the opinion that the difficulties involved in the question of



providing accommodation for the isolation of infectious disease can only be effectively grappled with by a strong body, like the County Council, who are in a much better position for dealing with it than District Councils are, seeing that some of these bodies are so small as to be quite incapable of facing these difficulties, and that the voluntary co-operation of Sanitary Authorities of any kind, impregnated as they are by antagonistic feelings of all sorts, is almost hopeless, unless in cases where strong personal influence can be brought to bear on them. As I pointed out in my last Annual Report, the effective action which has already been taken by some County Councils in this matter, notwithstanding the defects which experience has detected in Lord Thring's Act, is a good proof of the correctness of the opinion which I have repeatedly expressed and which I venture to again reiterate, in the hope that it may help to awaken those who have the control of this matter to their responsibilities in regard to it.

In other respects the work of dealing with infectious disease in the Combined District during the past year has been of the same routine character as in previous years.

## WORKS OF SANITARY CONSTRUCTION.

**DRAINAGE.**—In my last Annual Report I referred to schemes which were under consideration for the drainage of Lydney, Wickwar, and the suburbs of Gloucester, and now, after a further delay of twelve months, I have to report that they are still under consideration, though substantial advance has been made in each case. The nature of the progress thus made will be best dealt with in the special Report on that portion of the Combined District.

**WATER SUPPLY.**—In regard to the water supply I am glad to be able to record that the scheme for the supply of the parish of Woolaston, in the Lydney Rural District, has been again taken in hand and has made material progress; that schemes for the supply of Undy, in the Chepstow Rural District, and of Coates, in the Cirencester Rural District, have



also been under the consideration of the Councils of those districts. A scheme for supplying the town of Newnham has been formulated by Mr. Woods, an enterprising resident in that place, who has undertaken to carry it out as a private enterprise.

## GENERAL SANITARY ADMINISTRATION.

HOUSE ACCOMMODATION.—I have nothing special to report under this heading. There has been the same tendency to shrinkage of house accommodation in the purely rural parts of the Combined District, and the same increase of the urban portions which I have so frequently had occasion to record. But, the speculative builder is beginning to find his way into the country more than he has done hitherto, a result which is probably due to two causes ; first, to the keen competition between these gentry in the towns, where they are beginning to overstock the market ; and secondly, to the increasing use of the bicycle by the artisans of towns, who are thus enabled to live much further afield than they used to do. It is a common sight now of an evening to meet quite a troop of labourers and others in the neighbourhood of even small towns, scudding home to their cottages and gardens, probably enlivened by the resources offered for keeping poultry, pigs and bees. Looked at from this point of view, the cycle cannot but be regarded as a valuable aid to sanitary improvement, for it is certain that if its use extends at the rate at which it has been doing of late, it will not be long before the problem of the housing of the working classes in towns will solve itself in a way which could not have been imagined a few years ago—*solvetur non ambulando sed cyclendo !* And if other forms of road motors lend their aid, as appears probable, the facilities for the enjoyment by town labourers of a country life will be still further enlarged.

In my last Annual Report I referred to the importance of the powers given to Rural Authorities by the Public Health Amendment Act of 1890, to make by-laws in regard to the

construction of new houses, so far as relates to surrounding air space and ventilation, to drainage and to other matters involving health. This subject has during the past year been under the consideration of several of the larger Rural Authorities in the District, but I regret to say that in no case have by-laws on these matters yet been adopted. The question, no doubt, involves difficulties, in regard to the decision of where to draw the line between the close supervision of new buildings which is necessary in towns and the wider latitude that is justifiable in the country. One difficulty lies especially in the fact that the ordinary urban building by-laws require plans to be submitted for every structure which it may be intended to erect, whether for human occupation or for other purposes. Even in towns these by-laws would cause serious friction if they were in all cases rigidly observed or enforced. And in the country, where the occupier of a small piece of land who wants to erect a dwelling for himself on it, is often not only his own builder but his own architect as well, though quite unable to make a presentable plan, such regulations might be applied in such a way as to be very irksome.

But, there are certain broad principles which are applicable to the construction of human dwellings everywhere, at least in civilised countries like Great Britain, and it is neither impracticable to draft provisions to regulate them nor unreasonable that anyone who contemplates erecting a building for the occupation either of man or of domestic animals should be required to observe them when made. Ample experience shows that Sanitary Authorities who will not protect themselves as well as the future occupiers of these buildings from the sanitary troubles which defective construction is sure sooner or later to entail, will have only themselves to thank if they find hereafter that they have sown the seed which will ripen into a harvest of difficulties for their successors to reap.

LODGING-HOUSES.—I have nothing special to report under this head. Whilst the standard of comfort in the entertain-

ment provided by 'mine host' for man and beast in the upper strata of society has kept pace with the general progress of refinement, that which is available for the lowest class of wayfarers, outside the tramp wards of the Union, has not proportionately improved. With the exception of a slight improvement in the lodging-house accommodation in the town of Cirencester, the lodging-houses of the District, which are few in number, are very little better than they were twenty years ago, and it is not easy to see how to improve them so long as they remain in the hands in which they are at present.

FOOD SUPPLY.—The only point which calls for notice in connection with this subject is the increasing attention which is being given to the protection of milk from the risks of infections of different kinds to which recent scientific inquiries show that it is exposed. We have for a good many years known that there may be death in the pail, where a milk purveyor uses, it may be unknowingly, specifically polluted water to wash his utensils, or, with more culpable oversight, to adulterate his milk. But, competent investigation has established the further disagreeable fact that, milk, even of the most honest purveyor, may be seeded with the germs of fatal disease without his having knowingly or by any criminal negligence contributed to it. Even if he avoids, under the pressure of the supervision which the Sanitary Authority is empowered to exercise over his premises, the exposure of his milk to the grosser dangers of infection from the commoner forms of infectious disease occurring in his own household or in those of his milkers, or from obviously defective drainage or water supply, the atmosphere of his cowhouse is laden with impurities which, when absorbed by the milk as it passes into the pail, make it absolutely poisonous to infant life, and under some conditions, probably also to those of riper years. But, prior even to its exposure to these sources of contamination, milk may have been inoculated, before it leaves the udder of the cow, with the



germs of tuberculosis, and may thus carry with it the seeds of mischief that may lie dormant in the system of the consumer for years, until by some accident the vital energies of the body are depressed, its protective resources weakened, and an opportunity is thus afforded to the hitherto latent germs to assume a state of active mischief.

Fortunately, in this as in so many other cases, science which has revealed to us the bane has also not been long in providing us with the antidote. The great French chemist, Pasteur, who used to pride himself on having only enlarged in much of his work the field which was first so successfully cultivated by our own illustrious discoverer, Jenner, has shown us how, by availing ourselves of the aid of heat, we can effectively purify milk from taint of every kind, and invest it with a purity which it does not always possess even when it first leaves the udder of the cow. It will, probably, not be long before the milk supplied for human consumption will be as regularly "pasteurised" as it is now strained or cooled; for it is only when thus treated that it can be guaranteed as a perfectly safe food for everyone from infancy to old age.

The Bakehouses, Dairies, Cowsheds and Milkshops and Slaughter-houses of the District have been generally under inspection during the year, and I have nothing to add in regard to them to what I have frequently stated in previous Reports; that though many of them, especially in the case of Slaughter-houses and Cowsheds, are by no means as satisfactory as could be wished, they are generally in as fair a condition as can be expected, in view of the obstruction to improvement which is always offered by vested interests in such matters, and of the difficulty of exercising control in enforcing a high standard of cleanliness where the personal habits of the individual and the material aids for maintaining it are unfavourable or defective.

OFFENSIVE TRADES.—No action under this heading has been required during the past year, and no addition has been



made to the trades carried on in the District which come under it.

RIVERS POLLUTION ACT.—The only cases of any importance involving possible proceedings under this Act which have come under consideration during the past year are the oldstanding one of the pollution of the Wickwar brook by the sewage of that town; the alleged pollution of the Thames by the sewage of the town of Fairford, to which the attention of the Cirencester Rural Council has been called by the Thames Conservancy, and the pollution of a small stream in the Chepstow Rural District by mud and other matters from the works in course of construction for the supply of water to Newport. In neither of the two latter cases has the matter got beyond the stage of consideration, for in both of them the nuisance complained of is not of a very serious character. In the case of the Wickwar brook the nuisance is becoming more acute each year, and it is to be hoped that the remedy will not be much longer delayed.

INSPECTION OF BOATS AND VESSELS.—Although the Berkeley and Gloucester Canal and the Thames and Severn Canal both pass through portions of the Combined District, there are no boats which at present require any supervision on the part of any of the Authorities of the District; in the first instance, because the work of inspection is carried on by the Corporation of Gloucester as the Port Authority, and, in the second, because the Canal has been for some years disused, though steps are now being taken to repair it and render it again available for use.

In concluding this general summary of the sanitary history of the Combined District during the past year I may be permitted to refer to one aspect of it to which I have not yet alluded, and that is the work of Parish Councils. In my last Annual Report I referred to the very limited powers conferred on these Councils by the Local Government Act of 1893, so far as expenditure is involved, but I indicated that their power of dealing with sanitary questions generally, so

far, at any rate, as inquiry, discussion and report are concerned, appeared to be indefinite, and that in the exercise of such power they might usefully educate both themselves and their constituents in the conditions which are conducive to the maintenance of the public health and in the difficulties incidental to securing them. I may especially refer to matters connected with water supply and drainage as those in which Parish Councils, though possessed of very little power of independent outlay, may find ample scope for useful activity, and I could quote various instances during the year in which these bodies have, in different parts of the Combined District, done good service by either moving the District Councils to action or co-operating with them in furthering action which had been already commenced. The two subjects on which the energies of Parish Councils have hitherto been chiefly concentrated, viz.: parochial charities and rights of way, have scarcely any sanitary aspects, but there are indications that when these are exhausted the Parish Councillor will begin to direct his attention to matters of a more distinctly sanitary character. The training which he will thus receive in dealing with the conditions by which the public health is affected and in the methods by which they can be controlled cannot fail to increase his sense of responsibility and to fit him as occasion offers for devoting his energies to the larger field offered by the higher embodiments of administrative authority.

I am, Gentlemen,

Your obedient Servant,

FRANCIS T. BOND, M.D.

*Gloucester.*

# CHEPSTOW

## RURAL DISTRICT COUNCIL.\*

*Composition of District: Parishes, &c. (39), Monmouthshire:*

Portskewett, Caldicot, Ifton, Roggiett, Llanvihangel, Undy, Caerwent, Shirenewton, Newchurch East, Llanvihangel Tormynydd, Chapel Hill, Howick, Dinham, Llansoy, Llangwm Ucha, Llangwm Isha, Kilgwrrog, Itton, Mownton, Matherne, Penterry, Newchurch West, St. Pierre and Runston, St. Kingsmark, St. Bride's Netherwent, Tintern, Trellech's Grange, Wolves Newton, Llanvair Discoed, St. Arvans, St. Arvan's Grange Farm.

*Sanitary Inspector:* Mr. W. Williams, Chepstow.

*Area,* 42,878 acres.

*Population (1891),* 7,940.

*Inhabited Houses (1891),* 1,629.

The Council meets on alternate fortnights at Chepstow, after the meeting of the Board of Guardians.

### VITAL STATISTICS OF DISTRICT.

#### BIRTHS—

Males ... ..	114
Females... ..	100
Total ... ..	214
Ratio of Births per 1000 of population ... ..	27·0

#### DEATHS—

Small Pox ... ..	0
Measles ... ..	0
Scarlatina ... ..	0
Croup and Diphtheria ... ..	0
Whooping Cough ... ..	0
Continued Fever ... ..	2
Cholera, Diarrhœa and Dysentery ... ..	3
Puerperal Fever ... ..	† 1
Erysipelas ... ..	† 0
Total Deaths from Zymotic Affections ... ..	6
Total Deaths from all causes... ..	114
Proportion of Deaths per 1000 of population ... ..	14·3
Deaths under 5 years of age ... ..	23

\* Until 1895 the Chepstow Rural District included what is now the Lydney Rural District.

† In earlier Reports Puerperal Fever and Erysipelas were grouped together, and it would not now be easy to give their *maxima* and *minima* during the past 21 years.

## CHEPSTOW RURAL.

CASES OF INFECTIOUS DISEASES WHICH CAME TO THE  
NOTICE OF THE MEDICAL OFFICER OF HEALTH IN 1895.

		Small Pox.	Scarlet Fever.	Croup and Diphtheria.	Typhoid Fever.	Erysipelas.	Total.
Trellech's Grange	...	2	0	0	0	0	2
Chapel Hill	..	0	0	0	3	0	3
Caldicot	...	0	0	0	2	0	2
Total	...	2	0	0	5	0	7

THE recent separation of this district from that of Lydney so dislocates its past statistics for purposes of comparison that it is not practicable to bring them into relation with those of previous years.

The birth and death rates of the past year call for no special notice, beyond the remark that the former is somewhat above and the latter somewhat below the average of the Combined District as a whole.

There are only two features of any interest in the record of infectious sickness in the district during the year. The first of these is a limited outbreak of Small Pox which occurred at Trellech's Grange, near Tintern, in the latter part of December. One day, when at Chepstow, attending a meeting of the Lydney District Council, I happened to hear that there was a case of suspicious illness at Trellech's Grange. I at once proceeded there and found a married woman ill in bed, in an isolated cottage, with an eruption which was unquestionably that of Small Pox. She had been attended for some days by a medical practitioner, but, as notification is not compulsory in the district, he had not communicated either with me or with the Sanitary Inspector. I immediately quarantined the cottage, in which also resided the woman's husband and three young children. These latter had been vaccinated and escaped the disease. The husband had been re-vaccinated after exposure to infection, but had a slight attack of it. The woman, who was of middle age and had only been vaccinated in infancy, had a more severe one.



Re-vaccination was at once pushed amongst the neighbours, with the result that no one in the immediate locality took the infection ; but the father of the woman, who, with his wife, occupied an isolated cottage at Chapel Hill, near Tintern, and who had carried milk to the infected cottage, was attacked shortly afterwards. His case occurred in the commencement of the present year, but as it forms part of this outbreak I will deal with it here. His cottage was quarantined, and with him the outbreak ended. The only clue to the origin of the infection was that about a fortnight before, a female tramp, with six or seven children, called at the cottage in which the disease first made its appearance, and the woman who took the infection gave the children some bread, but stated that they did not come inside the door. At the time of this visit there was, I believe, Small Pox both at Monmouth and at Usk, and it is very probable that the infection was imported by the woman or her children from one or other of these places. I made inquiries on the point but could obtain no information. The limitation of the outbreak, both at Trellech's Grange and at Chapel Hill, to the cottages first attacked was a subject of more satisfaction from the facts that, in the former case, some of the neighbours had visited the sick woman before the nature of the illness was recognised, and that, at Chapel Hill, the old man, in a fit of delirium, one day broke out of his cottage and wandered about the village of Tintern for some time before he was captured and taken back by the local policeman. Fortunately, at Tintern, as in all other parts of the Chepstow District, infant vaccination has been for some years well maintained and effectually done, so that the whole of the younger portion of the population is more or less under its protective influence, and a good many adults were re-vaccinated.

Fortunately also no diffusion of infection from Gloucester has, up to the date of writing, taken place into this District. Had the disease spread at Tintern, the effect upon the locality, as a popular resort, might have been very disastrous. In view

of such a contingency, and in the light of the experience of the outbreak at Caldicot two years ago, the District Council would do well to secure some place to which any persons attacked by the disease might be removed, even if it were nothing better than the pair of cottages at Caldicot, which were available until it was decided by the Council to give up renting them.

It is rather singular that Chapel Hill, which has for years been free from any visitation of infectious illness more serious than some occasional cases of Scarlet Fever, Measles or Whooping Cough, was in the month of September the scene of an outbreak of Fever which at one time threatened to become dangerous. Three men who had been down in South Wales, employed at some tin works there, returned to their homes at Chapel Hill in an ailing condition, with symptoms which gradually assumed the character of well-marked Enteric Fever. On inquiry into their antecedents I discovered that the disease had been very prevalent in the locality in which they had been employed and from which they had unquestionably brought the infection with them when they returned home. Two of the three men recovered but the third died, and his wife, who was confined whilst nursing him, also succumbed to an attack of Puerperal Fever, which was no doubt excited by the unfortunate conditions in which she was placed. In these cases there were all the elements of what might have been a much more extensive outbreak : an energetic infection, small and crowded cottages and a good start. Fortunately, however, we were able to take such precautions as arrested its further development and the mischief was thus stamped out. But here, again, we have another illustration of the risk of what I cannot but call gambling with Providence in this matter. These were essentially cases for immediate removal to an isolation hospital. They might easily have spread the infection, in the same way as occurred in the neighbouring district of Lydney a few months previously. By the enforce-

ment of precautions which were, happily, successful, the spread of the infection was very limited and involved the sacrifice of only two lives, but it might easily have been otherwise.

Later on in the year some cases of a febrile but ambiguous character occurred at Forge Row, Caldicot Pill. As in similar cases in other parts of the Combined District, to which I have referred elsewhere in this Report, there was a certain amount of influenza-like complication about them which made it difficult to decide positively as to their true pathological affinities. But the sanitary condition of this Row, as also of other cottages at the Pill, is anything but satisfactory, and has been a subject of frequent discussion for years past by the Authority. Promises of improvement have been repeatedly given by the owners of this property, and some efforts have certainly been made to redeem them, but more will be necessary before it will be raised to even a moderate level of habitability. Unfortunately the business carried on at the Pill Works seems to be a declining one, and the demand for accommodation may possibly ere long decline also, and thus solve the problem, by emptying the cottages without the need for invoking the aid of the law.

The question of water supply has for some years past occupied a leading position in the sanitary work of this District in consequence of so large a portion of the more populous part of it being affected by the pumping operations carried on by the Great Western Railway at the Severn Tunnel. The villages of Portskewett and Caldicot have for some time been supplied by a system of pipe distribution connected with this pumping arrangement, and I am glad to be able to report that there is now a prospect of the parish of Undy, which, in dry seasons, suffers much from want of water, being also supplied from the same source.

During the autumn a complaint was made of the pollution of a stream in the parish of Llanvair, by refuse which found its way into it from the works which are being carried on by



the Corporation of Newport for the construction of a reservoir at Llanvacces. The number of persons affected in the Chepstow District is not large, but the nuisance is more serious in an adjoining parish, which is in the Newport Rural District. Communications have been made by both Authorities to the Corporation of Newport, but without any very satisfactory result. The nuisance seems, however, to have diminished of late and probably may have been only of a temporary character.

In other respects the sanitary condition of the district has been satisfactory and its history uneventful during the year.

The work done in connection with the general supervision of the district is summarised by Mr. W. Williams, the Sanitary Inspector, as follows :—

DWELLING HOUSES :

Cleansed and disinfected	...	...	...	...	6
Closed as unfit for habitation	...	...	...	...	0
Repaired	...	...	...	...	10
New built...	...	...	...	...	4
Overcrowding abated	...	...	...	...	6

CLOSETS :

New, provided	...	...	...	...	9
Repaired	...	...	...	...	10
Cleansed	..	...	...	...	£5

DRAINS :

Defective repaired or constructed anew	...	...	10
Offensive, cleansed	...	...	15

NUISANCES :

Offensive refuse removed	...	...	36
Animals improperly kept	...	...	10
Ditches and cesspools cleansed or covered	...	...	19

WATER SUPPLY :

Defective remedied	...	...	...	9
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Total 179

Slaughter-houses under inspection	...	...	9
Bakehouses	„	„	10
Dairies and Milk Shops	„	...	30
Lodging-houses	„	„	0

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Total 49

Expenditure on Water Supply	...	...	£26 19 8
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# CHIPPING SODBURY

## RURAL DISTRICT COUNCIL.

*Composition of District : Parishes (23) of Chipping Sodbury, Old Sodbury, Westerleigh, Pucklechurch, Wapley, Dodington, Dyrham, Abson and Wick, Doynton, Cold Ashton, Marshfield, West Littleton, Tormarton, Acton Turville, Great Badminton, Little Sodbury, Horton, Hawkesbury, Alderley, Wickwar, Yate, Frampton Cotterell, and Iron Acton.*

*Sanitary Inspector : Mr. J. B. Adams, Marshfield.*

*Area 63,284 acres.*

*Population, 1891, 16,795. In 1881, 17,530.*

*„ Annual decrease, 73.5.*

*Inhabited Houses, 1891, 3835.*

No Sanitary Committee : Sanitary business dealt with at the fortnightly meetings of the District Council.

### VITAL STATISTICS OF DISTRICT.

BIRTHS—						1895.	Highest No. in 22 years.	Lowest ditto
Males	...	...	...	...	...	201	313	201
Females	...	...	..	...	...	246	300	201
Total	...	...	...	...	...	447	601	415
Ratio of Births per 1000 of population ...						26.6	32.2	24.6
DEATHS—								
Small Pox and Chicken Pox	...	...	...	...	...	0	1	0
Measles	..	...	..	...	...	0	19	0
Scarlatina	...	..	...	...	...	0	27	0
Croup and Diphtheria	...	...	...	...	...	2	22	0
Whooping Cough	...	...	...	...	...	4	11	0
Fever	...	...	...	...	...	3	13	0
Cholera, Diarrhœa, and Dysentery	...	...	...	...	...	7	11	1
Puerperal Fever	..	...	...	...	...	0	*—	—
Erysipelas	...	...	...	...	...	0	—	—
Total Zymotic Deaths	...	...	...	...	...	15	57	11
Total Deaths from all causes	...	...	...	...	...	294	401	238
Proportion of Deaths per 1000 of population						17.4	21.4	13.6
Deaths under 5 years of age						65	127	54

\* In earlier Reports Puerperal Fever and Erysipelas were grouped together, and it would not now be easy to separate their *maxima* and *minima* during the past 22 years.

## CHIPPING SODBURY RURAL.

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### CASES OF INFECTIOUS DISEASES NOTIFIED DURING 1895.

	Scarlet Fever	Croup and Diphtheria	Typhoid Fever	Puerperal Fever	Erysipelas	Total
Chipping Sodbury	0	1	0	0	3	4
Doynton ... ..	0	2	1	0	0	3
Frampton Cotterell	0	1	0	0	0	1
Iron Acton ... ..	0	0	1	0	0	1
Wick and Abson	0	6	0	0	2	8
Hawkesbury ... ..	0	0	1	0	1	2
Hillesley ... ..	1	0	0	0	0	1
Pucklechurch ... ..	0	0	4	0	0	4
Dyrham ... ..	1	0	0	0	0	1
Wickwar ... ..	11	3	0	0	0	14
Tormarton ... ..	0	0	0	0	2	2
	<hr/> 13	<hr/> 13	<hr/> 7	<hr/> 0	<hr/> 8	<hr/> 41

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THE vital statistics of this district during the past year present no special feature of interest in regard to the general birth and death rates, which do not vary materially from the average for some years past. Scarlet Fever, which had been very prevalent in 1894 in some parts of the district, though of a mild type, has considerably diminished, the number of cases notified having fallen from 46 to 13. There has been a slight increase in the number of cases notified as Diphtheria, but the mortality has been the same as in 1894. On the other hand there have been fewer cases of Continued Fever, but the mortality has been greater. Of the seven cases notified, four were of an isolated character, occurring in different parts of the district, and, like the other three, belong to the category to which I have referred in the outset of this Report, being cases which could not be traced to any of the causes by which Typhoid Fever is ordinarily developed. The three others all occurred in the parish of Pucklechurch and possess an interest arising from the fact that two of them resided in adjoining cottages in an outlying portion of the village, in which other cases of

the same disease have occurred at intervals during the last few years. The cause of these successive cases of fever in this group of houses has been very obscure. At first sight it threw suspicion upon a dipping well situated in the midst of these houses, from which they obtain their supply of water. When this suspicion first arose there may possibly have been some ground for it, though it was not easy to make this hypothesis fit in with the circumstances of the original outbreak. But much care was then taken to protect the well from the sources of contamination to which it was thought to be exposed, and I have been unable to satisfy myself by repeated examination that any reasonable ground for suspicion on this ground exists. In order, however, to set at rest the doubts which were still entertained by some of the residents, a sample of the water from this well was, at my suggestion, sent to the County Analyst, who pronounced it free from any evidence of serious contamination.

The two cases which have occurred in this part of the village during the present year were two married women, of middle age, living in cottages a few yards from one another. The first of them was attacked on the 24th of October and the second on the 20th of November. There had been no personal relations between them, although they lived so near one another ; there was nothing common to the two cottages, except the fact that in both cases water from this well was used, though very little of it appears to have been actually drunk in its unsophisticated form by either woman. No one else in either cottage was in any degree affected, yet both women had severe attacks : one of them recovering after a protracted convalescence, the other, who was removed to the Bristol Hospital, died there. To add to the obscurity of this attack, an adult labourer, living in an isolated cottage in the fields, about half a mile from those occupied by these women, had been attacked four months before in much the same way and had died ; but no one else in the cottage occupied by him was affected, and the inmates did not use the water from the



dipping well in question. If these cases were not Typhoid it is difficult to say what they were, unless they were cases of Influenza. They resembled closely a number of other cases which came under my observation in the course of the past summer and autumn, of which those already referred in the Report on the Chepstow Rural District as having occurred in Foundry Row, Caldicot, are samples. But, whilst there was in the case of these latter some evidence of sanitary defects in connection with the dwellings occupied by the affected persons, which might possibly be brought into relations with the disease, I could find nothing in the Pucklechurch cottages to throw light upon the illness.

In connection with this outbreak, I may allude to a long standing complaint of a roadside ditch nuisance at the other end of the village of Pucklechurch, caused by the sewage of a certain number of houses in the village, which finds its way into this ditch. The Parish Council took active steps in bringing this nuisance under the notice of the District Council, and a proposal for remedying the defect was made by the Sanitary Inspector; but when it was found that it would cost a few pounds sterling to carry it out, the Parish Council intimated their desire that things should remain as they were and nothing has been done. The fact is, as I have intimated in previous Reports, that it would be difficult to attack the question of improving the drainage of Pucklechurch without running the risk of being drawn into a scheme which would be costly out of all proportion to the benefits to be attained by it. There has certainly been a singular prevalence of Continued Fever at intervals in this village for some years past, but, although it would be a simple way out of the difficulty to attribute this succession of cases to defects of either drainage or water supply, I have been unable at any time to satisfy myself that any one of the cases could be intelligibly connected with either of these conditions.

In the month of October a communication was received from the Dursley Rural Council with reference to a suggestion



which had been made by Sir John Dorington, the County Chairman, that the Dursley, Thornbury and Chipping Sodbury District Councils should combine for the purpose of providing a joint hospital for isolation purposes. The scheme is one which is deserving of careful consideration, but it met with very little encouragement and no action has been taken in regard to it.

About the same time I drew the attention of the Council to the desirability of adopting the Public Health Amendment Act, 1890, and a motion to do so was brought before the Council ; but, unfortunately I was absent from the meeting at which the matter was discussed, and it was negatived, under the erroneous impression that it might involve the Council in serious outlay.

The subject for the drainage of Wickwar, which has now been under the consideration of the Council and of its predecessor, the "Sanitary Authority" for upwards of twenty years, is still "dragging its slow length along." In the early part of the year an application was made by the Council to the Local Government Board to form a special drainage district at Wickwar, with the view of relieving the outlying parts of the parish of their liability to share in meeting the cost of the proposed drainage scheme. A public inquiry was held at Wickwar, at which the views of the various parties interested were carefully represented, but the Board have since informed the Council that they do not see sufficient reason to justify the formation of such a district. Meanwhile, the sewage of the west end of the town, which receives the waste washings of two large breweries and is the main cause of the nuisance in the brook, has been treated with a certain amount of sulphate of iron and lime water, whenever the brook has been particularly offensive, and the nuisance has been to some extent palliated in this way.

The ordinary work of the supervision of the district during the year is reported by Mr. J. B. Adams, the Sanitary Inspector, to be as follows :—

Defective drains repaired	...	...	...	...	20
Dilapidated closets ditto	...	...	...	...	8
Foul ditto cleansed	...	...	...	...	11
Offensive refuse removed	...	...	...	...	20
Pig nuisances removed or abated	...	...	...	...	21
Dilapidated houses repaired	...	...	...	...	3
Public pumps ditto...	...	...	...	...	1
Overcrowding abated	...	...	...	...	2
Dairies and cowsheds under inspection	...	...	...	...	50
Slaughter houses ditto	...	...	...	...	8
Bakehouses ditto	...	...	...	...	23
Total...					167

None of the above matters involved any legal proceedings.

## CIRENCESTER RURAL DISTRICT COUNCIL.

*Composition of District : Gloucestershire—Parishes (39) of Sapperton, Edgeworth, Duntisborne Abbots, Duntisborne Rouse, Winstone, Syde, Brimpsfield, Elkstone, Colesborne, Rendcombe, North Cerney, South Cerney, Bagendon, Daglingworth, Baunton, Stratton, Coates, Rodmarton, Siddington, Preston, Harnhill, Driffield, Barnsley, Ampney Crucis, Ampney St. Peter, Ampney St. Mary, Poulton, Down Ampney, Maiseyhampton, Kempsford, Fairford, Quenington, Hatherop, and so much of the parish of Cirencester as is not included in the jurisdiction of the Cirencester Urban Authority ; Wilts—Kemble, Pool Keynes, Somerford Keynes and Shornecote.*

*Sanitary Inspector : Mr. W. B. Harmer, Cirencester.*

*Area—Glos., 74,591 ; Wilts., 6,122. Total, 80,713.*

*Population (1891) ,, 12,074 ; ,, 880. ,, 12,954.*

*Inhabited Houses (1891), 2,709 ; ,, 197. ,, 2,906.*

Sanitary Committee meets every alternate month, and sanitary business is taken at the regular meetings of the District Council when necessary.

### VITAL STATISTICS OF DISTRICT.

BIRTHS—						1895.	Highest No. in 22 years	Lowest ditto
Males	...	..	...	...	...	163*	254	151
Females	...	...	...	...	..	151	242	150
Total	...	...	..	...	...	314	496	305
Ratio of Births per 1000 of population						24·2	33·9	23·5
DEATHS—					Glo'ster.	Wilts.		
Small Pox and Chicken Pox					0 ...	0	1	0
Measles					...	...	15	0
Scarlatina					...	...	7	0
Croup and Diphtheria					...	...	17	0
Whooping Cough					...	...	8	0
Fever					...	...	5	0
Cholera, Diarrhœa, and Dysentery					...	...	7	0
Puerperal Fever					..	...	—††	—
Erysipelas					...	...	—	—
Total Deaths from Zymotic Affections					12...	1	29	6
Total Deaths from all causes					†213...	20	303	171
Proportion of Deaths per 1000 of population					...	...	17·9	13·3
Deaths under 5 years of age					60...	7	92	38

\* No detailed return of Births for the different parts of the whole District is received.

†† In earlier reports these Diseases were grouped together, and it would be difficult now to ascertain their *maxima* and *minima* during the past 22 years.

† To these deaths have to be added 20 more, which occurred in the Union Workhouse and Cottage Hospital, Cirencester, of persons belonging to the Rural District.

## CIRENCESTER RURAL.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING  
THE COURSE OF THE YEAR.

Gloucestershire.	Small Pox.	Scarlet Fever.	Typhoid Fever.	Croup and Diphtheria.	Puerperal Fever.	Erysip- elas.	Total.	Removed to Hospita
Coates ...	0	0	3	0	0	0	3	0
Fairford ...	0	3	0	0	0	0	3	3
Ampney Crucis	0	0	1	0	0	2	3	0
„ St. Peter	0	1	0	0	0	0	1	0
Daglingworth	0	1	0	1	0	0	2	1
Stratton ...	0	3	0	0	0	1	4	3
Rodmarton ...	0	3	0	0	0	0	3	3
Ashbrook ...	0	3	0	0	0	0	3	0
Harnhill ...	0	0	1	0	0	0	1	0
Poulton ...	0	0	0	0	0	1	1	0
North Cerney	0	2	0	0	0	0	2	0
Baunton ...	0	1	0	0	0	0	1	0
Total	0	17	5	1	0	4	27	10
Wilts.								
Somerford } ...	0	6	0	0	0	0	6	4
Keynes }								
Kemble ...	0	1	0	0	0	1	2	2
Total	0	24	5	1	0	5	35	16

THE birth and death rates of this district for the past year are of an average character and call for no special notice, and its general sanitary history has also been singularly uneventful. If it had not been for the prevalence of Whooping Cough, from which eight deaths were recorded, the zymotic mortality would have been extremely low. Twenty-four cases of Scarlet Fever of a mild type have been notified during the year, of which thirteen were removed to the Isolation Hospital. Five cases of Continued Fever were notified, three of which were in the village of Coates: two of them children, occurring in the months of April and May, and the third, a young married woman, in the month of June. These three deaths, occurring as they did in succession, at intervals of about one month, naturally gave rise to some anxiety as to their cause, and as



to whether they might be due to a contaminated water supply. In connection with this suspicion, it may be mentioned that the water supply of Coates has always been its weak point, but much more so in regard to quantity than to quality. The village lies on the higher ground of the Cotswold range, and is situated on the porous beds of the lower oolite, in which there is an abundant water supply to be found, but at considerable depth. Until recent years, however, this supply has been regularly drained by the pumping operations carried on by the proprietors of the Thames and Severn Canal for the purpose of maintaining that waterway; and in order to provide for the requirements of the cottages in the village, many of them have rain-water tanks, the supply so provided being supplemented by a large masonry tank, into which surface water is drained.

During the whole of my acquaintance with Coates, now more than twenty years, the parish has been generally free from any illness which could be reasonably attributed to defective water, although it has been frequently, especially during the dry seasons of the last few years, hard pressed for a sufficient supply, the want being especially felt by the farmers of the parish, who have sometimes had to cart water for weeks together. When, therefore, these three cases, two of them notified as Typhoid and one as Enteric Fever, occurred, and two of them proved fatal, it was natural, as I have before observed, that some anxiety should have been felt as to their cause. As the result of the inquiry which I made on the subject, it was, in the first place, clear that the cases had no intelligible connection with one another. The two boys lived, it is true, at a short distance from each other, but there was no evidence of any relations between them by which infection could have been conveyed from one to the other. Moreover, the illness in each case was strikingly destitute of an infectious character, for, in one there were four other residents and in the other six, out of the whole number six being children, of whom none were at all affected. There were

features, too, in the clinical history of both cases which gave room for question as to their real character. The third case, that of the young married woman, was still more open to doubt. She had been confined eight weeks previous to her case being notified as Typhoid Fever, and had not been well since. In her case, too, there were six other residents in the house, five of them children, none of whom were affected. The water was obtained from a rain-water tank on the premises, and on examination gave no evidence of serious contamination. It had for years been used in common by this and two other families, without any reason for suspecting it. I may further add that Coates is, as might be inferred from its elevated position, healthily situated, and the cottages of the village are of an unusually good character.

There has been no other illness in the village or parish of a similar suspicious character, either before or since these cases, and I could only come to the conclusion, therefore, in the absence of any other clue as to their origin, that they belong to the category of obscure cases to which I have already had occasion twice to refer in the reports of the Chepstow and Chipping Sodbury districts, and that if their occurrence at such comparatively short intervals from one another was not a mere coincidence, it was due to some general cause unconnected with any obvious defect in the village of Coates itself, and especially with its water supply. It is, nevertheless, with much satisfaction that I have to record that a scheme for providing a pipe supply of water for the use of the parish has been lately under consideration of the Parish Council, in the furtherance of which Mr. Parsons has taken an active interest. It is proposed to obtain this supply by pumping from a deep well on Mr. A. Calor's estate, and the scheme appears to be in all respects a practicable and desirable one, except in regard to the possible effect on the supply of pumping at the Thames Head Station, should operations be resumed there by the new Trust which has taken the canal in hand.

The shrinkage in the water in the canal arising from the cessation of pumping at the Station coinciding, as it has done, with the dry weather of the past year, has created difficulty in connection with the water supply at Upper Siddington, which has, however, been for the present met by improvements of a minor character in a local well belonging to Earl Bathurst.

The only other incident in the history of the year which calls for special reference is the notice which has been served upon the Rural Council by the Thames Conservancy in regard to the alleged pollution of the Thames by the sewage of Fairford. This notice, which is an outcome of the comprehensive and highly coercive powers acquired by the Conservancy through their recent Act, opens up a question which is likely to give a good deal of trouble to Sanitary Authorities within the Thames watershed before long. There is, doubtless, ample room for improvement of the water of the Thames by removing from it sewage pollution which finds its way into it from a number of urban populations, especially in the lower part of its course from which the London water companies derive their intake. But the case of Fairford is certainly one in which any real danger to the consumers of London water must be infinitesimal, from the facts, that the bulk of sewage which escapes into the brook by which it is carried away is comparatively small ; the distance which the brook has to run before it reaches the Thames is considerable ; and that the further course of the already highly-diluted sewage before it reaches the intake is so long that its exposure to aerating and depurating agencies, combined with the enormous dilution which it undergoes, must render the pollution produced at Fairford altogether innocuous long before the water so contaminated reaches the London intake. Still, the Conservancy Board have been invested by Parliament with the power to compel the Council to so deal with the sewage of Fairford that it shall not find its way directly into a tributary of the Thames, and both the



Council and the people of Fairford will do well to be prepared with a plan for realising this object whenever they may be compelled to do so.

The effect of the formation of Parish Councils in regard to sanitary work has been very appreciable in this district, several instances having occurred during the year in which the District Council have received communications from them calling attention to matters which appeared to require attention.

The following statement, supplied by Mr. W. B. Harmer, the Sanitary Inspector of the district, represents the ordinary work carried on during the course of the year :—

HOUSE ACCOMMODATION .				
Existing houses cleansed, repaired, or re-constructed...	3			
Houses closed .. .. .	2			
EXCREMENT DISPOSAL :				
Existing closets repaired or re-constructed ...	20			
Closets foul, cleansed ... ..	34			
DRAINAGE :				
Existing drains repaired or re-constructed ... ..	10			
Existing drains foul, cleansed ... ..	13			
Offensive cesspools remedied .. ..	10			
WATER SUPPLY :				
Water supply provided .. .. .	1			
Existing supply improved ... ..	5			
Well repaired ... .. .	1			
INFECTIOUS DISEASES :				
Infected premises, disinfected or cleansed ... ..	15			
Schools closed on account of Infectious Disease ...	2			
ANIMALS, KEEPING AND SLAUGHTER OF :				
Pig or other Animal Nuisance abated ... ..	6			
Offensive refuse removed ... ..	6			
Dairies, Cowsheds, and Milk-shops registered in district	44			
HUMAN HABITATIONS :				
Cases of Over-crowding dealt with ... ..	8			
OTHER MATTERS DEALT WITH :				
Watercourses cleansed ... ..	5			
CASES UNDER INSPECTION AT CLOSE OF YEAR ... ..	4			
Total ... ..				189

None of the above matters involved any need for legal proceedings nor do they call for any special notice here.



## CIRENCESTER

### URBAN DISTRICT COUNCIL.

*Composition of District:* Nearly co-extensive with the Parish of Cirencester.

*Sanitary Inspector and Surveyor:* Mr. G. Hibbert.

*Assistant Sanitary Inspector:* Mr. J. Williams.

*Area:* 2,633 acres (about).

*Population in 1891,* 7,441.

*Inhabited Houses, 1891,* 1,635.

Sanitary Committee meets once a month, and at other times when necessary.

#### VITAL STATISTICS OF DISTRICT.

BIRTHS—						Highest No. in 22 years.	Lowest ditto
						1895.	
Males	...	...	...	...	...	81	126
Females	...	...	...	...	...	76	116
Total	...	...	...	...	...	157	242
Ratio of Births per 1000 of population						20.9	32.0
DEATHS—							
Small Pox	...	...	...	...	...	0	0
Measles	...	...	...	...	...	1	10
Scarlatina	...	...	...	...	...	0	4
Croup and Diphtheria	...	...	...	...	...	0	3
Whooping Cough	...	...	...	...	...	5	14
Fever...	...	...	...	...	...	0	8
Cholera, Diarrhoea and Dysentery	...	...	...	...	...	2	14
Puerperal Fever	...	...	...	...	...	0	—†
Erysipelas	...	...	...	...	...	0	—
Total Deaths from Zymotic Affections						8	37
Total Deaths from all causes						*113	197
Ratio of Deaths per 1000 of population						15.0	28.1
Deaths under 5 years of age						29	93

#### CASES OF INFECTIOUS DISEASE NOTIFIED DURING 1895.

	Small Pox.	Scarlet Fever.	Croup and Diphtheria.	Typhoid Fever.	Erysipelas.	Total.
Removed to Hospital	0	17	1	2	0	20
Not removed	0	6	1	0	5	12
Total	0	23	2	2	5	32

\* In addition to the 113 deaths recorded above, there were 20 deaths in the Union Workhouse, and in the Cottage Hospital of persons not belonging to the Cirencester Urban District.

† In earlier reports Puerperal Fever and Erysipelas were grouped together. It would be difficult now to separate their *maxima* and *minima* for the last 22 years.

## CIRENCESTER URBAN.

THE most noteworthy fact in the vital statistics of this district during the past year is the extreme lowness of the birth-rate, which has been only 20·9 per thousand living persons, and is, with the exception of the Wiltshire portion of the Tetbury Rural District (19·8), the lowest in the Combined District, though that for the Tetbury Urban District (21·0) is scarcely appreciably higher. So low a birth-rate for an urban population, of a fairly well-to-do character, is remarkable, and the more so because it has been declining for several years past, whilst the population of the district must have been increasing, judging from the number of houses built. The actual relations of the birth-rate for the past 10 years are shown in the following table, the apparent discrepancies in which, especially in the fact that the identical numbers of births for 1890 and 1891 give different rates, are to be explained by the information obtained from the census in the latter of these years as to the population of the district being smaller than it had been assumed to be during the previous decade. In the latter years of the last decade an attempt has been made to adjust the effect of an assumed increase of the population on the birth-rate, which may, perhaps, have unduly depressed the rates for the past year.

Year.	Total Births.							Birth-rate.
1886	...	...	...	197	..	...	...	23.1
1888	...	...	...	214	...	...	...	25.3
1889	...	...	...	186	...	...	...	21.9
1890	...	..	...	194	...	...	...	22.9
1891	...	..	...	194	...	.	..	26.0
1892	...	...	...	186	...	...	...	25.0
1893	...	...	...	183	..	...	..	24.8
1894	...	...	...	168	...	...	...	22.5
1895	...	...	...	157	...	...	...	20.9

The death-rate, which was inordinately low in 1894, has risen to what may be considered a normal point, viz., 15.0

per thousand. The zymotic deaths have been remarkably low, and five out of the eight registered were from Whooping Cough, there having been again not a single death from either Scarlet or Continued Fever.

The two cases of Typhoid Fever were two sisters of the ages of 9 and 13 years, living in a house in Castle Street, who had a very mild attack, of a somewhat doubtful kind. It was considered desirable to remove them to the Hospital, where they speedily recovered.

There has been some increase in the number of cases of Scarlet Fever notified in the past year when compared with the year before, but there has been no mortality and the type of the disease has been generally a mild one. In the general introduction of this Report I have referred to the necessary effect of the practice of regularly removing to an isolation hospital all cases of a disease like Scarlet Fever, for which protection can only be obtained by an attack, as being that of a continual increase of an unprotected population, and, therefore, a continual augmentation of the risk of outbreaks from the casual introduction of infection into it. The practical result of this must be that the disease tends to become endemic. For, the infection is so liable to find its way amongst the population, from its ready diffusibility, that it is impossible to exclude it, and what we get, therefore, is a continual lighting up of small fires, which are easily extinguished and do but little damage, in comparison with the wholesale and destructive conflagrations of former times. In stating that these recurring but mild attacks do "but little damage," reference is made rather to the obvious general results than to the possible constitutional mischief which may be left behind in individual cases; for it may occasionally happen that an apparently mild attack of the primary disease may, especially through negligent treatment, leave behind it in the system the seeds of serious and life-long mischief. Still, with all allowances for possibilities on this score, it is an unquestionable gain to be able to keep the general severity

of the disease under control, which can only be done by the early isolation of every case in which the patient cannot be effectually isolated at home. The next stage of progress, and one which we have good reason for thinking is now not far off, will be the inoculation of each unprotected individual with a protective vaccine which, as in the case of vaccination, will communicate to the system an attenuated form of the disease, by which protection against a further or more severe attack will be conferred.

In the commencement of the year Measles was prevalent in the town, the infant departments of both the Board and Watermoor Schools having to be closed on that account. But only one death resulted. As neither this disease or Whooping Cough are notifiable there are no means of knowing the precise number of children who were attacked. But as no need arose for closing either of the schools on account of the latter affection its incidence could not have been very extensive, though the mortality has been relatively high.

The two cases of Diphtheria notified were of a trivial character and call for no special notice.

The progress made during the past year in increasing the house accommodation of the district has been very considerable, especially on the Ashcroft Estate, where a number of better-class houses are being erected which will materially increase the attractiveness of the town for residential purposes. Some increase has also been made in the direction of building houses of a less expensive character, suitable for the incomes of respectable artisans, clerks, and others of a similar social position, both on this estate and at Watermoor. The general improvement in the residential resources and appearance of Cirencester which is thus being effected by private enterprise is being also ably seconded by the public spirit of Earl Bathurst and the District Council, in promoting a scheme for the improvement of Castle Street, which will add greatly to the general picturesqueness of the town besides providing accommodation for public purposes, which is much needed.



Whilst good work of a positive character has been done in this direction efforts have been made to "level up" the standard of habitability of the poorer class of houses, one of which has been directed to a sample of one of the worst batches of old houses in a court connected with Cricklade Street, the owner of which has been formally notified of the repairs which are necessary as an alternative to an order for closing them altogether. It is obvious that efforts of this kind are attended with more difficulty than arises in the building of new houses, in which demand encourages supply. In this latter case one may be left to adjust itself to the other in accordance with ordinary economic conditions, but, in the case of closing houses, supply has to be artificially restricted, even where demand may continue to exist, and the operation of public opinion and of the law has to be invoked to disturb the equilibrium which natural laws would otherwise maintain.

The work done in connection with general inspection of the town is summarised in detail in the subjoined report by Mr. Hibbert, the Surveyor and Inspector, who has been appointed in the place of the late Mr. W. H. Holland, whose untimely decease took place in the earlier part of the year. It calls for no special comment beyond the note that some improvement has taken place in the lodging-house accommodation, and that some difficulty has been experienced in dealing with the scavage refuse of the town. This latter has been temporarily overcome by carting all the refuse to an old quarry at a short distance from the town: but the time is, I think, come when the question of providing a destructor, for getting rid of refuse of all kinds that is combustible, will have to be considered, though this is a question which is in some degree mixed up with others, one of which is the provision of a more effective disinfectant than that at present in use, which was constructed nearly twenty years ago, and is not up to the standard of modern efficiency.

1.	HOUSE ACCOMMODATION :		
	(a) Plans approved ... ..	29	
	(b) Existing altered or re-constructed ... ..	16	
	(c) Closets ... ..	0	
2.	EXCREMENT DISPOSAL :		
	(a) New closets ... ..	0	
	(b) Existing repaired or re-constructed ... ..	8	
	(c) Foul cleansed ... ..	9	
3.	DRAINAGE :		
	(a) Existing drains repaired or re-constructed ... ..	10	
	(b) New ditto provided ... ..	0	
4.	WATER SUPPLY :		
	Existing supply improved and wells cleansed ... ..	4	
5.	INFECTIOUS DISEASES :		
	(a) Infectious premises disinfected or cleansed ... ..	5	
	(b) Schools closed on account of Measles ... ..	2	
6.	ANIMALS, KEEPING AND SLAUGHTER OF :		
	(a) Pig or other animal nuisances abated ... ..	10	
	(b) Offensive refuse removed ... ..	7	
7.	HUMAN HABITATIONS :		
	(a) Cases of overcrowding dealt with ... ..	6	
8.	Other matters dealt with ... ..	5	
	Water courses cleansed ... ..	0	
	Dairies, Cowsheds, and Milkshops registered in the district and under inspection ... ..	17	
	Lodging-houses ... ..	2	
	Slaughter-houses ... ..	10	
	Statutory notices served ... ..	7	
	Proceedings taken ... ..	0	

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*Sanitary Inspector and Surveyor:* Mr. F. Weaver, Lansdown Road, Gloucester.

*Population in 1891, 11,463.*

*Inhabited Houses, 1891, 2,167.*

The District Council meets for sanitary business on the last Tuesday in each month.

BIRTHS—						Highest No. in 22 years.	Lowest ditto.
						1895.	
Males	...	...	...	...	...	125	155
Females	...	...	...	...	...	154	159
Total	...	...	...	...	...	279	297
Ratio of Births per 1000 of population ...						23.5	33.0
DEATHS—							
Small Pox and Chicken Pox						0	8
Measles						1	9
Scarlatina						1	14
Croup and Diphtheria						3	21
Whooping Cough						1	7
Fever						1	6
Cholera, Diarrhœa, and Dysentery						4	9
Puerperal Fever						0	*—
Erysipelas						0	*—
Total Deaths from Zymotic Affections						11	33
Total Deaths from all causes						+120	165
Ratio of Deaths per 1000 of population...						10.1	15.9
Deaths under 5 years of age						38	66

† Exclusive of the following deaths of persons not belonging to the District but occurring therein ... ..	{	Barnwood House ... ..	6
		County Asylum (Barnwood)	15
		(Wotton)	75
		Children's Hospital ... ..	5

Total 101

## GLOUCESTER RURAL.

## CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR.

		Small Pox.	Scarlet Fever.	Croup and Diphtheria.	Typhoid Fever.	Erysip- elas.	Puerperal Fever.	Total
Quedgeley	...	0	3	0	0	0	1	4
Matson	...	0	2	0	0	0	0	2
South End District		4	0	0	0	0	0	4
East	„ „	1	1	1	1	1	0	5
Longford	...	0	3	0	0	0	0	3
Wotton	...	0	5	0	0	0	0	5
Tuffley	...	0	0	1	0	1	0	2
Elmore	...	0	3	2	0	0	0	5
Hempstead	...	0	1	3	0	3	0	7
County Asylum (Wotton)		0	0	0	0	2	0	2
Churchdown	..	0	3	0	1	0	0	4
Highnam	...	0	0	0	1	0	0	1
Total	..	5	21	7	3	7	1	44

THE exceptionally healthy character of this district during the past year is indicated not only by the lowness of the death-rate, 10.1 per thousand, but also by the fact that only 11 deaths are referable to the zymotic class, 4 of them being returned as from Diarrhœa. This is nearly the lowest record in the last 22 years. The birth-rate, which had fallen in 1894 to the very low level of 22.6 per thousand, has risen again a little to 23.5. Scarlet Fever was prevalent in the parishes of Quedgeley, Elmore, Wotton, Churchdown and Matson, but to a less extent in the district generally than in 1894. Of the three cases of Typhoid Fever notified during the year, one occurred at Churchdown, one at Coney Hill, and one at Highnam. The last of these was that of a well-known agriculturist, whose illness could not be traced to any distinct cause, and was somewhat ambiguous in its character, a statement which applies also to the other two cases—in fact, these cases closely resembled those to which I have already



referred in previous portions of this Report in the ambiguity of their character, the uncertainty of their origin, and the absence of any tendency to spread.

The most important feature of the sanitary history of the year has been the five cases of Small Pox which occurred in it. The first of these was notified in the middle of May. It was that of a man, 52 years of age, living in the East End district, who had a moderate attack of a discrete character. He had been working at Sharpness, unloading grain from a foreign vessel, but I was unable to obtain any history of illness having occurred on board this vessel ; and other men were employed with the man in question on the job, who were unaffected. There was no Small Pox in Gloucester at the time, and it is probable that if the infection was not derived from Sharpness itself, it may have been taken from someone in the train during the man's journeys backwards and forwards to his work. The house in which the case occurred was in a rather populous district, from which, if the disease had spread, it might have easily been imported into Gloucester. In consideration of this fact, Dr. Campbell, the Medical Officer of Health for the City, kindly undertook to receive it into the Small Pox ward of the City Isolation Hospital. By this means, and by the prompt re-vaccination of the wife of the patient and another female, who were the only other inmates of the house, and by effective disinfection of the premises, the infection was successfully stamped out. The man had been vaccinated in infancy, and though at his age the protective influence of the operation had become considerably enfeebled, it still was sufficient to modify materially the virulence of the infection. It was not until the 17th of November that another case was notified in a street on the outskirts of the city, at a time when several others had been notified in the city itself. The case was that of an unvaccinated child six months old, who had a copious eruption on the face and body. I felt some doubt about the case myself, and conferred with the gentleman who had

notified it, and with the Medical Officer of Health for the City, in regard to it, but in view of the facts that there were eight other persons in the house, which was not a large one, and that there were a number of unvaccinated cases all around, it was decided to remove the child to the hospital with its mother, as that was the condition on which alone the parents would allow of its being removed. Both mother and child were placed in a ward by themselves, where the child was kept under observation and was progressing favourably when in the course of twelve days the mother was attacked with Small Pox, and in a day or two after the child became much worse and eventually succumbed, the mother recovering. I have referred to this case at some length because it has been made a good deal of by the local anti-vaccinators, though it is difficult to see what support they can derive from it for their agitation against vaccination. For, what does it prove? not that vaccination is no protection against Small Pox, since the child was admittedly unvaccinated and died from Small Pox. So far, therefore, the case only confirms what the evidence of the past hundred years has abundantly demonstrated: that an unvaccinated child who is exposed to the infection of Small Pox, as this child undoubtedly was, is sure to take it, and will probably, though not infallibly, take it severely. It is true that the mother also took the disease, though she had been vaccinated in infancy; but then we did not need this experience to show that adults who have been vaccinated only in infancy may take Small Pox. Whether the mother derived the infection from the child or from the hospital is a question which is open to discussion but not of much importance. All the other members of the household, seven in number, two of them unvaccinated children, were promptly vaccinated on the removal of the child and mother to the hospital and no further mischief ensued. If the anti-vaccinators think that they can extract any support for their views out of these cases they will need to employ more than usual perversion of facts to do so.

The two other cases of Small Pox which were notified before the end of the year were a lad of 15 and a man of 43 years of age, living in different houses in the neighbourhood of the cases just referred to. The latter, which was of a rather severe character, was removed to the Hospital, but the former, which was very slight, was treated at home, and both made good recoveries. In both cases all the other members of the households were at once vaccinated and no further extension of the disease took place. Both patients had been vaccinated in infancy only. Up to this date, therefore, although there had been a good many more cases of Small Pox in the city than had occurred in the suburbs, the disease was well under control, and there was no reason to anticipate the enormous extension of it which subsequently took place. How that was caused is now a subject of general notoriety. The main force of the catastrophe has fallen upon the city. But, seeing that a considerable portion of the population in the Gloucester Rural District resides in streets and roads outside the boundary of the city, which, to an ordinary observer, are indistinguishable from the population inside that boundary, it is not to be wondered at that when the infection once got fairly hold of the general population it passed backwards and forwards over the nominal boundary without any regard to purely topographical distinctions. As all this, however, took place in the present year it would be improper to refer to it, except in this incidental way, in a Report on the year 1895. Nor are the cases which occurred during this latter year sufficiently numerous or striking to suggest any lessons of importance here. These can only be effectively set forth when the epidemic can be considered as a whole, which cannot be done until it has ceased.

It is, however, not out of place to say that when it developed its full force it found both the Gloucester Urban and Rural Authorities unprepared to meet it. In both infant vaccination had been pretty equally neglected, not by any



omission on the part of the Sanitary Authorities themselves, but of another public body, to whose hands the law has entrusted its maintenance. The Rural Council had no place of any kind for the reception of cases of the disease which might occur in its district, and though the Urban Council was somewhat better off in this respect, having a small hospital which might have sufficed to meet the requirements of ordinary conditions, directly the disease became, from accidental circumstances, distinctly epidemic, the accommodation of the hospital was soon exhausted, and the Corporation were compelled, by public opinion, to enter on a futile effort to overtake it by putting up additional buildings, until the hospital, from its position in the midst of a considerable population, became a centre of serious infection.

In view of these facts it is right to mention that the subject of providing accommodation for the reception of cases of infectious disease in the Gloucester Rural District has been under the consideration of the Rural Council on several occasions during the past year. As a result of these discussions it was decided to reopen the communications which had been made in past years to the Gloucester Urban Authority to join in providing a hospital for the requirements of the two districts. A conference between committees of the two Authorities was held in September last, at which a general agreement was come to as to the desirability of joint action between the two Authorities in the sense indicated, and it was left to Dr. Campbell and myself to submit a statement of the accommodation which would be required to meet the wants of the two districts. A report on this matter had been drafted and was ready for presentation when the first drops of the storm, which subsequently rained Small Pox on the city, began to fall, and checked further action. Had it not been for this unfortunate accident the present Isolation Hospital would not only not have assumed its present dimensions, but it is possible that it might, by the



time this Report is passing through the press, be in process of removal altogether, and the city would have thus been relieved of what has been for some years past a growing source of danger, which the present epidemic has intensified beyond all reasonable expectation.

The time of the Council has, during the past year, been much occupied by questions concerned with the drainage of that portion of the Rural District which forms part of or is connected with the suburbs of Gloucester. The old-standing question of the Longford sewer has been again brought to the front by the increasing inefficiency of the sewer to do its work. At present the responsibility for rectifying this defect is repudiated by both Authorities: by the Rural Authority because it is alleged that this sewer was formally vested in the Urban Authority by an order of the Local Government Board, and by the Urban Authority because the sewer is actually in the Rural District. Negotiations have been going on for several years as to the terms on which the ownership of the sewer should be transferred from the Urban to the Rural Authority, and they got so far some months ago as to have been embodied in a draft of an agreement to this effect, but at this stage all progress has been arrested and the matter is again at a standstill. Who is responsible for this stoppage is a question to which possibly two different answers might be given, according to the persons to whom it might be put. But, so far as things stand at present, it looks very much as if nothing further is likely to be done in the matter until the sewer is again choked, as it was a few years ago, and proceedings have to be instituted to decide which authority is legally responsible for its reconstruction and maintenance.

A much more important question, in regard to the magnitude of the issues involved, has been also under repeated consideration by the Council in the shape of a proposal for a scheme for the drainage of so much of the parishes of Wotton Without and Barnwood as more immedi-

ately adjoin the main road leading from Gloucester to Cirencester. The necessity for such a scheme has been apparent for some years past, in the increasing pollution of the Barnwood brook and in the increasing complaints of nuisance arising from the conversion of the road drain of the thoroughfare in question into a sewer by houses connecting their drainage with it. As a result of the consideration of the matter by the District Council a Committee was appointed to report on it, which they did by recommending that the Council should consult an engineer to advise them on the subject of a scheme of drainage. They accordingly requested Mr. Fletcher Trew, of Gloucester, to report to them in this matter, and that gentleman has prepared a scheme which is now under the consideration of the Local Government Board.

Questions connected with the drainage of the Coney Hill and Saintbridge portions of the East-end district and of Norton have also occupied the attention of the Council during the year, but no action has been taken in regard to any of them, as they all involve serious difficulties in the way of cost through which it is not easy to see the way.

The question of water supply in the suburbs of Gloucester has been again brought to the front, especially in the South-end district, by complaints as to the unsatisfactory character of the supply obtained from the Hempstead Waterworks. It is to be hoped that this question will ere long receive its solution when the completion of the new supply for the city from Newent shall enable the Urban Council to see their way to supplying the suburbs of the city, which they have hitherto been unable to do.

The ordinary work done in the routine inspection of the district during the past year is summarised by Mr. F. Weaver, the Inspector and Surveyor to the Council, as follows :—

DWELLING HOUSES :					
Cleansed and disinfected	...	...	...	...	18
Closed as unfit for habitation	...	...	...	...	2
Dilapidated repaired	...	...	...	...	15
Overcrowding abated	...	...	...	...	2

## CLOSETS AND CESSPOOLS :

New, provided	...	...	...	...	...	...	3
Defective repaired	...	...	...	...	...	...	5
Cleansed	..	...	...	...	...	...	6

## DRAINS :

New, provided	...	...	...	...	...	...	11
Defective repaired or re-arranged	...	...	...	...	...	...	6
Disconnected from ditches	...	...	...	...	...	...	14

## DITCHES :

Foul, cleansed	...	..	...	...	...	...	8
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## WATER SUPPLY :

New, provided	...	...	..	...	...	...	1
Defective remedied	...	...	...	...	...	...	1
Pig Nuisances abated	..	...	...	...	...	...	25
Dairies and Milk Shops under inspection	...	...	...	...	...	...	40
Bakehouses	..	..	...	...	...	...	6
Plans for new dwellings presented and passed	...	...	...	...	...	...	83

Expenditure on Structural Works   ...   ...   £75 10   9

The outlay referred to was incurred in extension of the sewerage in the South-end district, where the increasing erection of houses made this necessary. Nearly the whole of the plans passed during the year were for houses to be erected in this and the other suburban portions of the city, which are, as has been above stated, not distinguishable from it by any obvious line of demarcation, except that of the railway bridge on the Painswick road and of the Wotton brook on the Cirencester road. The growing difficulties in these districts in connection with drainage, water supply, and making and maintenance of streets, can only be properly met by harmonious co-operation between the two authorities, until a further extension of the city boundaries takes place, which will be unavoidable before many years are past.

LYDNEY  
RURAL DISTRICT COUNCIL.

*Composition of District:* The Parishes of Lydney, Aylburton, Alvington, St. Briavels, Hewelsfield, Lancaut, Tidenham, and Woolaston.

*Sanitary Inspector:* Mr. W. Williams, Chepstow.

*Area, 24,634 acres.*

*Population (1891), 8119.*

*Inhabited Houses* (1891), 1693.

This district was formed as a result of the Local Government Act of 1894, by a combination of the Gloucestershire parishes of the Chepstow Poor Law Union. The Council meet monthly at Chepstow, but the sanitary work of the parish of Lydney is carried on by a Parochial Committee which meets at Lydney.

## VITAL STATISTICS OF DISTRICT.

BIRTHS—

Males	...	...	...	...	...	...	...	...	130
Females...	...	...	...	...	...	...	...	...	124
Total	...	...	...	...	...	...	...	...	254
Ratio of Births per 1000 of population					...	...	...	...	31.2

DEATHS—

Small Pox	...	...	...	...	...	...	0
Measles ...	...	...	...	...	...	...	0
Scarlatina	...	...	...	...	...	...	0
Croup and Diphtheria		...	...	...	...	...	2
Whooping Cough	...	...	...	...	...	...	1
Continued Fever	...	...	...	...	...	...	8
Cholera, Diarrhoea and Dysentry	...		...	...	...	...	1
Puerperal Fever	...	...	.	...	...	..	0
Erysipelas	...	...	...	...	...	...	0
Total Deaths from Zymotic Affections				...	...	...	12
Total Deaths from all causes...			...	...	...	...	104
Proportion of Deaths per 1000 of population					...	...	12·7
Deaths under 5 years of age ...			...	..	..	...	31



LYDNEY RURAL.

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THE birth-rate of this district for the past year is one of the highest in the Combined District (31.2), whilst the death-rate (12.7) is on the other hand, one of the lowest. This apparently satisfactory indication of the sanitary condition of the district generally is confirmed by the very small amount of infectious sickness which has prevailed in it during the year, outside the parish of Lydney. In fact, both in this aspect of the subject and in that of the work carried on during the year by the Council and its officers, the history of the year is to be found not so much in the records of the Council as a whole as in those of the Lydney Parochial Committee.

One of the first acts of the District Council was the adoption of the Infectious Diseases Notification Act, which placed the district on the same footing in this respect as that of the other Gloucestershire portions of the Combined District. So far as the greater portion of the district is concerned, the utility of the Act has not been much illustrated during the past year, but the benefit of it was very conspicuous in the outbreak of Typhoid Fever which occurred in the parish of Lydney itself. This outbreak was one of the two most important incidents in the sanitary history of the year, and both on this account as well as for its general interest, deserves particular notice here, the details of which may be summarised from a special report on the subject which I made at the time to the District Council and to the Local Government Board.

The outbreak in question commenced in the month of August, and was first brought under my notice by information which I received of two cases of Enteric Fever in the two adjoining districts of East Dean and Awre. These cases were both of them young women who had been employed in a linen draper's establishment at Lydney, and on making

inquiries into the matter I found that two other young women who had been employed in the same establishment were detained at their homes in and near Lyduey with symptoms which left no doubt that they, too, were suffering from the same disease. Further investigation made it clear that all of these young women, as well as another who, in the interim, had left the locality for a position in South Wales and who was attacked in the same way about the same time, had incurred the disease whilst taking their meals for a short time, owing to accidental circumstances, in a small house on the opposite side of the street to that of the establishment in which they were habitually employed, and that it was in this house that the source of the mischief was to be looked for. It also became clear on fuller inquiry that the origin of the mischief was traceable to illness of a suspicious character in a child, which existed in this house at the time the young women began to take their meals in it. The illness consisted of a slight febrile attack, accompanied with diarrhœa, for which the child in question was seen by a local medical practitioner; but it had so little of a serious aspect about it, that during a portion of the attack the boy was able to attend school and to go about without difficulty, and that the medical attendant considered it so unimportant that he not only did not consider it necessary to notify it as infectious in character, but when I suggested to him at first its possible relations to the other cases, which he did not happen to be attending, he scarcely thought it probable that so apparently trifling an attack could have led to such serious results. The question, therefore, arose how this extension and intensification of the mischief had occurred. Suspicion was naturally at once directed to the water supply, which was derived from a well upon the premises. On examination of this water it gave no evidence of serious contamination, but exhibited the general character of the waters of the locality. A drain from the closet ran near the well, but attempts to establish the existence of any connection between the two by means of copious

flushing of the drain with solution of common salt, failed in showing any increase of chlorine in the water. Moreover, the water of the well was reported to be used by various people not living in the house, many of them children, amongst whom no illness could at the outset of the inquiry be discovered. Although the young women had all drunk the water of this well there appeared to be difficulties in the way of attributing the infection to it. The scent in this direction thus weakened was additionally enfeebled by another circumstance which suggested a different clue to the origin of the mischief. Opening into the room, which was used both for the preparation of meals, and for taking them, by these young women, was a water closet, so constructed that under certain conditions of the wind, it practically ventilated itself into the dwelling room, and I found on inquiry that considerable complaint had been made by the young women of the offensiveness of this arrangement. It is only fair, however, to note in connection with this point that no complaint had been previously made by the occupier of the house, who, with her two children, had alone previously used this closet, and that no illness had occurred in the house before this attack to suggest anything amiss with it. Considerable strain was, of course, put upon the closet by the importation of so many users of it into the house for the temporary purpose of taking their meals, and the general conditions were still further complicated by the drought which existed at the time and caused difficulty in properly flushing the closet. The problem that presented itself, therefore, was this: whether the specific infection which originated in the comparative trifling illness of the child was communicated to the young women directly through the infected atmosphere of the closet; or through food which had become infected from this source by being kept, prepared and eaten in the room with which the closet was in direct communication; or by water from the well which had become contaminated casually through the medium of the drain?



The question as to the part played by the water supply was further complicated by the subsequent occurrence of two cases of a similar character to the others: one of them a young woman from a neighbouring inn, the occupants of whom had occasionally obtained water from the well in question, though the patient declared that she herself had never drunk this water, and another of a boy, living at some little distance from the house, but who had undoubtedly drunk water from the well. This fact, combined with another, that no other member of the family of which this boy formed a part, containing several children, was in any way affected, strengthened the suspicion as to the water having been probably the main, though possibly not the sole cause of the mischief, a suspicion which was further justified by opening the drain which ran near the well, when it was found in a defective condition, although no positive evidence of leakage into the well could be discovered.

The history of this portion of the outbreak may be completed here by the statement that, in addition to the five young women who had been first attacked, two of whom died, and the boy and the servant at the inn, both of whom recovered, the servant was, when she began to ail, sent to her home in a neighbouring village, where she infected her mother, who died: that the second child of the occupant of the house in which the mischief arose had a slight attack: and that a brother of one of the five original patients also took the infection at his own home, where his sister was nursed. So that eleven persons in all were affected in this outbreak, seven of them over 15 years of age and four under. Of these eleven cases, five occurred in their own homes, where they were treated without any extension of the disease, and three under similar conditions, but with an extension of the infection in each case to a second member of the family.

This outbreak was by itself sufficiently interesting and complicated, but it became additionally so from its relation



to other incidents. For, almost immediately after the first four of these cases came to my knowledge, I learned that two other young women living in a house some 300 or 400 yards distant from that in which the first outbreak originated were ill with symptoms of a similar kind. This illness spread in the course of a few weeks through the household, a third sister, a brother, and also the father, being all in succession attacked, of whom two of the sisters and the father died. To add to the pathos of this attack, the mother was also carried off by an apoplectic stroke during its course, so that within little more than a month four members of this family were carried to their graves. Now the complication introduced into the original problem by this additional feature will be appreciated when it is stated that no connection of any kind could be traced between this outbreak and that first referred to, except one, and that is that both this family and the occupier of the house in which the first mischief arose had their milk from the same dealer; that although the way in which the outbreak in this family arose threw suspicion also upon their well, the most careful investigation failed to confirm this suspicion; that both of the young women who were first attacked had fallen ill within a few days after an excursion by sea to Ilfracombe, in the course of which they got very wet, but during which they stated that they drank nothing but tea or coffee; that for several weeks the patients were attended by a trained nurse from the Gloucester Infirmary, who, when her services were no longer needed, was drafted to a house at a little distance to attend a man who had a rather severe attack, the origin of which could not be connected with any of the previous cases or with any other intelligible cause; and that the wife and two small children of this man were quite unaffected, though living all the time in the same house with him, whereas, the trained nurse, who for more than a month had been living in a house the atmosphere of which must have been saturated with infection, after continuing

her services for more than a fortnight on the patient to whom she was transferred, began to ail, was sent back to the Gloucester Infirmary, where she developed well-marked Enteric Fever, from which she there died.

The seven cases, then, which occurred in the two houses thus locally associated, in Bath Place, although no connection could be traced between them, beyond that of a similar milk supply, constitute the second phase of this outbreak, which concurred, in point of time, with the first. But further inquiry revealed the fact that at the same time another outbreak was in progress at a row of houses known as Factory Row, close to the canal, and about as far off from the two other centres as they were from one another. In this outbreak, which went on for several weeks, four houses out of eight and nine inmates out of forty-three were affected, six of these nine inmates being the whole of the children of one family. The other three cases were a boy in one house, and two adult men in two other houses, one of whom died. In this outbreak, many of the details of which I am obliged, by considerations of space, to omit, no definite cause could be satisfactorily established. The milk supply was different from that of the others ; there was no reason to suspect the water supply ; direct infection, caused by want of proper means of isolation, accounted for some of the cases, but the others were very obscure.

I have only been able to give the salient features of these three apparently independent but contemporaneous outbreaks, or to refer to a number of interesting facts which added to their complexity, and are dealt with in my original Report occupying 22 closely-written foolscap pages. I will only add that, contemporaneously with the occurrence of these three outbreaks, two cases of what appeared to be a similar attack occurred in two children living in a house at least half-a-mile off ; that, shortly after, a child was attacked in a well-arranged house at a short distance from that in which the original mischief arose, who died ; whilst two adult men

were also attacked in a similar way on Primrose Hill, about a mile away, one of whom also succumbed. No connection of any kind could be traced between these separate centres of infection, even the milk supply being different in several of them. Some of the cases in Factory Row, like those of the house in Bath Row and some of those in the outbreak first described, were, as I have before said, probably due to direct personal infection: but in the majority this certainly did not arise. The mortality of the outbreak was high,—10 out of 40,—showing probably a high degree of intensity in the infection in several of the fatal cases, where the conditions were favourable to extension of the mischief, none took place.

There is only one other point to which I need refer, and that is to the possibility of the infection having been diffused by means of the milk supply. A good deal might be said on this point for which there is no room here. I have discussed it at some length in my original Report, and it will be sufficient to say that, although there was some *primâ facie* reason for suspecting the milk, the balance of evidence appeared to show that it could not have been a factor in originating most, if any, of the attacks.

This outbreak was one of the most complicated and obscure with which I have ever had to deal. It bristles with questions of interest to the pathologist as well as to the sanitary inquirer. But there is one lesson above all others which it should teach all who are concerned in protecting the public health, and that is the overwhelming importance of every sanitary district being provided with a proper place for the isolation and treatment of such cases as these. For 22 years Lydney had been absolutely free from any cases of Typhoid Fever, a record which, in my experience, is unique in a town of its size. It was, doubtless, in the belief that this immunity would continue indefinitely, that the late Chepstow Rural Authority postponed the consideration of their responsibility in regard to this important duty. But



the time came when, by a combination of circumstances which it is not very easy to clearly explain, the fire of infection became simultaneously lighted up in several district centres. Had there been an isolation hospital to which some, at least, of these cases could have been at once transferred from their own homes, the outbreak could have been extinguished much earlier than was otherwise practicable and the mortality could have been in all probability considerably reduced.

It is only necessary further to say that all that was practicable in the way of precautions against the spread of the mischief, when it was once discovered, was done both by myself and the Sanitary Inspector, Mr. Williams, as well as by the Parochial Committee, the Chairman of which, Mr. Beaumont Thomas, devoted a good deal of time and attention to the matter.

A great deal of the time both of the District Council and of the Lydney Parochial Committee has been occupied in the consideration of the scheme for the drainage of Lydney, which, like all projects of the kind, moves on with a measured slowness that is incomprehensible to those who are inexperienced in the complications of the machinery by which these operations have to be conducted. No inconsiderable portion of the delay involved in these proceedings occurs in the transmission of plans to and from the central office and in communications connected therewith. I have no hesitation in saying that if the centre of reference were in the county instead of in London, schemes which it now takes years to get through might be completed in as many months. The fact is that the Local Government Board appears to suffer under as great a congestion of work as Parliament itself, and it is a congestion which appears to increase rather than otherwise, as might be not unreasonably expected from the natural increase of the sanitary requirements of the country, due, on the one hand, to the force of legislation, and, on the other, to the increasing demands of population and of public opinion. All that can be said in favour of the devolution of authority



by Parliament to subordinate bodies can be urged with equal weight in support of a similar devolution of a good deal of administrative work from the Central Board in London to County Councils, by whom the work could be done much more expeditiously and quite as well, provided they were compelled by law to provide the requisite machinery for adequately undertaking it. But, so long as considerations of misdirected economy are allowed free play, the public will continue, to make use of a familiar but expressive saying, to "save at the spigot whilst they are wasting at the bung-hole." Local authorities can be rarely got to see that so far as their work has to be done by paid officials, the cheapest policy in the long run is to have a sufficient and competent staff to do their work, to see that they do it, and to pay them as well as an intelligent private employer would pay assistants under similar circumstances.

The District Council have also had under their consideration the scheme for supplying water to the Netherend portion of the parish of Woolaston, which was suspended temporarily by an adverse vote of their predecessors in office, and which is now progressing as expeditiously as can be expected under the circumstances, which, as in all cases of the kind where expenditure is involved, lend themselves somewhat to delay. The need for a water supply for the Newerne portion of Lydney has also been in evidence. Here, too, difficulty lies not so much in obtaining the water but in settling how it is to be paid for.

It may not be out of place here to refer incidentally to a subject which the altered conditions of highway management during the last few years, and the increasing demands of the public for better maintenance of the thoroughfares in all localities in proportion to their urban character, have tended to bring into much more prominence than was previously the case, and that is conflict between the County and District Authorities as to their mutual responsibilities in regard to the cleansing of the streets in small towns, which

are chiefly main roads, from the mud and other filth which accumulates on them, and to the prevention of drains made primarily for carrying off surface water being converted into sewers. On the first of these points considerable feeling has been excited in Lydney, as in other small towns within the Combined District, and much debate has arisen thereon, as it has also in regard to the second point referred to. In these as in so many similar matters in which local authorities are apt to get at loggerheads with one another, if only half the trouble were taken to remove difficulties which are often taken apparently to magnify if not to create them, sometimes by fractious officials, things would move on more harmoniously and expeditiously than they do.

During the course of the year I have brought under the consideration of the District Council the question of availing themselves of the power given them by the Public Health Amendment Act, to make by-laws for the whole of their district for the control of new buildings in regard to matters of sanitary construction, but as yet they have not seen their way to take any action in the matter.

The ordinary routine work connected with the inspection of the district is thus summarised by Mr. W. Williams, the Sanitary Inspector :—

#### HOUSES :

Cleansed and disinfected	...	...	...	...	11
Repaired	...	..	...	...	6
New built	...	...	...	...	9
Closed	...	...	...	...	0
Overcrowding	...	..	...	...	15

#### CLOSETS :

New provided	...	...	...	...	11
Repaired	...	...	...	...	9
Cleansed	...	...	...	...	15

#### DRAINS :

Defective repaired	...	..	...	...	8
Offensive cleansed	...	...	...	...	19

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Carried forward ... 103

					Brought forward	103
OTHER NUISANCES :						
Offensive refuse removed	..	...	...	...		19
Animals improperly kept	...	...	...	...		13
Cesspools cleansed	...	...	...	...		17
WATER SUPPLY :						
Defects remedied...	...	...	...	...		12
					Total	164
Bakehouses	inspected...	...	...	...		8
Dairies and milkshops	"	...	...	...		21
Lodging-houses	"	...	...	...		1

All of the above matters were of a routine character, no legal proceedings were required, and no features of special interest occurred in connection with any of them.

The following expenditure has been incurred by the Council in works of sanitary construction :—

					£	s.	d.
Sewerage	..	...	...	...	24	13	7
Water Supply	.	...	..	...	36	10	2

# TETBURY

## RURAL DISTRICT COUNCIL.

*Composition of District :* Parishes of Kingscote, Newington Bagpath, Ozleworth, Boxwell, Oldbury, Didmarton, Weston Birt, Beverstone, Cherrington, Shipton Moyne, Long Newnton, Ashley, part of the Parish of Avening, and so much of the Parish of Tetbury as is not included in the jurisdiction of the Tetbury Urban Authority.

*Sanitary Inspector :* Mr. W. S. Jenkins, Tetbury.

*Area—Glos., 26,215 acres ; Wilts. 3,232 acres ; Total 29,447*

*Population, (1891), 3,983 ;     ,,   403.                     ,,   4386*

*Inhabited houses (1891), 887 ;     ,,   82                     ,,   969*

Sanitary business taken after the ordinary fortnightly meeting of the District Council.

### VITAL STATISTICS OF DISTRICT.

					1895.		Highest No.*	Lowest		
					GLOS.	WILTS.	Total.	In Whole District.		
BIRTHS—										
Males	...	...	...	...	49	4	—	72	36	
Females	...	...	...	...	40	4	—	70	33	
Total	...	...	...	...	89	8	—	133	70	
Ratio of Births per 1000 of population					22.2	19.8	—	45	20.1	
DEATHS—										
Small Pox and Chicken Pox					...	0	0	0	1	0
Measles	...	...	...	...	0	0	0	2	0	
Scarlatina	..	...	...	...	0	0	0	3	0	
Croup and Diphtheria	..	...	...	...	1	0	1	2	0	
Whooping Cough	...	...	...	...	2	1	3	3	0	
Fever	...	...	...	...	0	0	0	3	0	
Cholera, Diarrhœa, and Dysentery					0	0	0	2	0	
Puerperal Fever	...	...	...	...	0	0	0	—	—†	
Erysipelas	...	...	...	...	0	0	0	—	—†	
Total Zymotic Deaths	...	...	...	...	3	1	4	7	0	
Total Deaths from all causes					...	73	7	80	71	30
Ratio of Deaths per 1000 of population					18.3	17.8	18.2	19.4	9.5	
Deaths under 5 years of age					...	21	1	22	14	4

\* In consequence of the addition of a portion of the parish of Avening to the Tetbury Rural District in 1893, containing a population of 894, the highest and lowest numbers of past years are not now strictly comparable.

† In earlier Reports these diseases were grouped together, and it would be difficult now to obtain separate records of them.



Scarlet  
Fever,

2

The vital statistics of the district present no feature of any special interest. On referring to my Annual Reports on it for past years, the fluctuations in both the birth and death rate have been very considerable, the result, as I have more than once pointed out, of the relatively considerable disturbance produced by slight fluctuations of numbers in small populations. An illustration of this fact occurs in the past year in which the birth-rate has fallen from 36.2 in 1894, which was then the highest in the Combined District, to 21 this year, which is nearly the lowest. The death-rate, on the other hand, has risen from 12.4 in 1894 to 18.2 in 1895. The cause of these excessive fluctuations, whatever it may be, is certainly not a matter on which either the deliberations or the action of District Councils can exercise any influence; and if the population were a larger one it would, more or less, diminish in proportion as the numbers increased.

The history of the year has in other respects been entirely devoid of incidents of any importance, as will be seen from the record of work done in it, which Mr. W. S. Jenkins summarises as follows :—

#### HOUSE ACCOMMODATION :

New built...	...	...	...	...	...	3
Dilapidated repaired	...	...	...	...	...	0
Uninhabitable closed	...	...	...	...	...	0

#### CLOSET ACCOMMODATION :

New provided	...	...	...	...	...	2
Foul cleansed	...	...	...	...	...	6
Privies converted into earth closets	...	...	...	...	...	4

#### DRAINAGE :

Existing drains repaired or reconstructed	...	...	...	...	4
Foul " cleansed	...	...	...	...	5

#### OTHER NUISANCES :

Offensive pigs and other manure removed	...	...	...	...	3
Animals improperly kept	...	...	...	...	1
Overcrowding abated	...	...	...	...	1
Houses disinfected	...	...	...	...	3
Cases still under inspection	...	...	...	...	5

---

Total ... 37

Dairies, Cowsheds and Milkshops under inspection	...	14
Bakehouses under inspection ..	...	7

It is a very unusual experience for legal proceedings to be required in this district, but in one case during the past year it became necessary to summon the owner of a farm for not abating a drainage nuisance, and the magistrates made an order on the defendant with costs.

I have at various times visited different parts of the district and have no reason to believe from what I have seen in it that the above record is not a fair indication of its general freedom from any serious cause of complaint. Its conditions are so truly rural throughout, the population is so sparse, and the supervision exercised over some of the villages by their owners is so good, that the general absence of overcrowding and all evils which flow from it, which are so common in many rural districts, is not surprising.

# TETBURY

## URBAN SANITARY AUTHORITY.

*Composition of District:* The Town of Tetbury.

*Sanitary Inspector:* Mr. W. S. Jenkins, Tetbury.

*Area,* 105 acres.

*Population in 1891,* 2419.

*Inhabited Houses* „ 465.

The District Council meets once a month.

### VITAL STATISTICS OF DISTRICT.

					1895.	Highest No. in 22 years.	Lowest ditto.
<b>BIRTHS—</b>							
Males	...	...	...	...	30	50	21
Females	...	...	...	...	23	56	22
Total	...	...	...	...	53	106	42
Ratio of Births per 1000 of population	...	...	...	...	24.4	43.8	17.9
<b>DEATHS—</b>							
Small Pox	...	...	...	...	0	0	0
Measles	...	...	...	...	0	5	0
Scarlatina	...	...	...	...	0	2	0
Croup and Diphtheria	...	...	...	...	1	2	0
Whooping Cough	...	...	...	...	1	4	0
Fever	...	...	...	...	0	3	0
Cholera, Diarrhœa, and Dysentery	...	...	...	...	1	3	0
Puerperal Fever	...	...	...	...	1	2	0
Erysipelas	...	...	...	...	0	—	—*
Total Deaths from Zymotic Affections	...	...	...	...	4	8	0
Total Deaths from all causes	...	...	...	...	56	67	28
Proportion of Deaths per 1000 of population	...	...	...	...	23.1	28.5	11.4
Deaths under 5 years of age	...	...	...	...	18	18	5

### CASES OF NOTIFIABLE INFECTIOUS DISEASE WHICH HAVE COME TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH DURING THE YEAR

Scarlet Fever	...	...	...	...	...	...	8
Puerperal Fever	...	...	...	...	...	...	1
Diphtheria	...	...	...	...	...	...	1

\* In earlier Reports this disease was grouped with Puerperal Fever.

## TETBURY URBAN.

THESE is only one noteworthy feature in the vital statistics of the past year in this district, and that is the remarkably high death-rate (23.1). This is due to the large number of very young and very old persons who were carried off by the cold weather of the earlier part of the year. A comparatively small increase of the mortality from this cause produces a great disturbance in the proportion of the deaths in the total population. The deaths in the zymotic group were only four and do not call for any special notice. During the latter part of the year Scarlet Fever of a mild type was rather prevalent in the town, but it was kept under control without much difficulty.

I have during the year visited the outfall of the sewerage system and have found it free from any serious objection.

I have also visited the Bakehouses, Slaughter-houses and Milkshops and found them in fair condition.

The work done in connection with the general inspection of nuisances during the year is summarised as follows by Mr. W. S. Jenkins, the Sanitary Inspector and Surveyor :—

## HOUSE ACCOMMODATION :

New houses built...	...	...	...	...	...	0
Dilapidated repaired	...	...	...	...	...	5
Closed	...	...	...	...	...	0

## CLOSET ACCOMMODATION :

New provided	...	...	...	...	...	3
Foul cleansed	...	...	...	...	...	7

## DRAINAGE :

Existing drains repaired and reconstructed	...	...	...	...	6
Foul " cleansed	...	...	...	...	5

## OTHER NUISANCES :

Overcrowding abated	...	...	...	...	3
Pig nuisances "	...	...	...	...	3
Offensive refuse removed	...	...	...	...	4
Houses disinfected	...	...	...	...	2

---

Total ... 38

Milkshops	under inspection	...	...	...	...	3
Lodging-houses	" "	...	...	...	...	1
Slaughter-houses	" "	...	...	...	...	2
Bakehouses	" "	...	...	...	...	6
Number of houses connected with water supply	...	...	...	...	...	35



# EAST DEAN & UNITED PARISHES RURAL DISTRICT COUNCIL.

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*Composition of District: Parishes* of Littledean, Flaxley, Abinghall, Mitcheldean, Blaisdon, Minsterworth, Churcham, Bulley, Huntley, Longhope and Ruardean; and the *Township* of East Dean.

*Surveyor:* Mr. W. Spence, Cinderford.

*Sanitary Inspector:* Mr. W. Ellis, Oakle Street.

*Area,* 28,683 acres.

*Population in ... 1891,* 20,404.

*Inhabited Houses,* ,, 4,263.

The District Council meets once a month at Cinderford, and at other times at the Board Room, at the Union Workhouse, Westbury.

## VITAL STATISTICS OF DISTRICT.

						1895.	Highest No. in 22 years.	Lowest ditto.
BIRTHS—								
Males	...	...	..	...	...	330	409	274
Females	...	..	...	...	...	313	394	303
Total	...	..	...	...	...	643	790	602
Ratio of Births per 1000 of population						31.5	45.7	31.4
DEATHS—								
Small Pox	...	...	...	...	...	0	9	0
Measles	...	...	...	..	...	0	28	0
Scarlatina	...	...	...	..	...	2	68	0
Croup and Diphtheria	...	...	...	...	...	2	14	2
Whooping Cough	...	...	...	...	...	10	26	0
Fever	...	...	...	...	...	1	13	0
Cholera, Diarrhoea, and Dysentery	...	...	...	...	...	0	12	0
Puerperal Fever	...	..	...	...	...	0	—*	—
Erysipelas	...	...	...	...	...	0	—*	—
Total Deaths from Zymotic Affections						15	112	14
Total Deaths from all causes						297	406	256
Ratio of Deaths per 1000 of population						14.0	23.5	13.1
Deaths under 5 years of age						115	214	99

\* In earlier Reports Puerperal Fever and Erysipelas have been grouped together; it would be difficult now to separate their *maxima* and *minima* for the last 22 years.

## EAST DEAN RURAL.

## CASES OF INFECTIOUS DISEASES NOTIFIED IN 1895.

			Scarlet Fever.	Croup and Diphtheria	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Total.
Cinderford	...	...	3	0	0	9	0	12
Drybrook	...	...	2	0	0	1	0	3
Ruspidge	...	...	7	0	0	2	0	9
Other parts of East Dean			3	0	2	5	0	10
Mitcheldean	...	...	0	0	0	1	0	1
Littledean	...	...	0	0	0	1	0	1
Huntley	...	...	1	1	0	0	0	2
Minsterworth	...	...	0	1	0	0	0	1
Longhope	...	...	1	2	3	1	0	7
			17	4	5	20	0	46

THIS district, the name of which has been changed since the issue of my last Annual Report from that of "Westbury Rural," to that of "East Dean and United Parishes," has also been enlarged in area by the transference to it from the Ross Rural District of the parish of Ruardean, thus adding to it an area of 1,630 acres and a population of 1,284. The regular monthly meetings, which used to be held at Littledean Police Station, are now held at Cinderford, except once a quarter, when they are held at the Union Workhouse at Westbury.

There are two curious coincidences observable in the vital statistics for the year, one is that though the births are more numerous than in 1894 by 41, the birth-rate comes out almost identically the same, viz., 31.5, as against 31.4. This is due to the increase in the population of the district from the addition of the parish of Ruardean. The other is that the number of deaths this year in the district is precisely the same as in 1895, which, for the reason just given, gives a somewhat lower death-rate, viz., 14.0, as against 15.5. The former is amongst the highest, the latter amongst the lowest in the Combined District, so that in this respect the record is a satisfactory one.

The epidemic of Scarlet Fever, which, though a declining one in 1894, in that year led to the notification of 180 cases, has this year almost quite disappeared, only 17 cases having been notified. Two of these cases were fatal, which gives relatively a high mortality, when compared with 1894, in which there were only three deaths out of 180 notified cases ; but the actual numbers involved are so small that the disproportion must be attributed to purely accidental causes. It is noteworthy that in the whole of the Combined District this year only three deaths have been registered from this disease. When we compare these numbers with the 68 deaths which were registered in the Westbury Rural District alone from Scarlet Fever in 1876, a mortality which has only once been exceeded since by the same disease in the whole district, we can the better appreciate the diminution which has taken place in the ravages committed by this disease, even within comparatively recent years. A much more serious visitation during the past year has been that of Whooping Cough, to which two-thirds of the total mortality from zymotic disease of the year is attributable. As this disease is not notifiable it is impossible to say what proportion the mortality bore to the total number of cases ; but, from the fact that of the ten deaths registered, seven occurred in the township of East Dean during the last four months of the year, it is probable that the mortality was much higher proportionately than it was in the northern part of the district, in which Whooping Cough was most prevalent in the spring. For, the mortality of this disease, like that of Measles, is largely dependent on season : the occurrence of it in winter, when the infection is concentrated by defective ventilation of houses and its effect on the lungs intensified by cold, being always followed by more disastrous results, both in the way of mortality and of the permanent impairment of the lungs, than is the case in spring and summer.

Of the five cases of Enteric Fever notified during the year, in three the infection was imported into the district : in

one case from Blakeney, in a second from Lydney, and in the third from Pontardawe in South Wales. All of these cases recovered and no extension of the infection took place. The only case in which death was certified as having occurred from this disease was one of a somewhat doubtful character, occurring in a young man 25 years of age, the symptoms being obscure and the cause of death doubtful.

Two deaths were certified from Diphtheria, one of a boy ten years of age at Longhope, who died very suddenly after a short illness of an apparently trifling character. There were two other children in the house but neither of them nor any other inmate of the house was affected. No clue to this attack was discoverable either in the sanitary condition of the premises or in the personal history of the patient. The other death was not notified, by an oversight of the medical attendant, and I did not hear of it until some time afterwards. But in this case also no spread of the mischief occurred. Two other cases were notified, but they were not of a serious character and call for no special notice.

The small isolation hospital at Soudley has not been used during the year. During the greater part of this period it was in a state of disrepair and unfit for use, and since it has been put into good condition no case has occurred which called for removal. Moreover, the absence until lately of any proper ambulance for the removal of patients to it has been a drawback to sending any there, but that defect has now been remedied by the Council having had placed at their disposal a well-constructed ambulance which is kept at Cinderford.

A good deal of attention has been devoted by the District Council during the year to the subject of water supply, in regard especially to the re-adjustment of charges for the Cinderford district and the provision of a better supply for Ruardean Hill. A project for this latter object seemed to be at one time feasible, but difficulties arose in connection with the large cost involved, and it has been for the present abandoned and the efforts of the Council restricted to



improving the existing sources of supply. A good supply of water has also been provided at Horsepool bottom and the wells on Plump Hill have been improved.

The only question of drainage which has involved any special consideration is that of the houses on Littledean Hill, the requirements of which have been to some extent met hitherto by a drain with an outfall into a field which is private property. But this drain is insufficient for the needs of the locality and the problem is how to supplement it without embarking in considerable outlay or creating a serious nuisance, which might at any moment lead to the Council being required to take the sewage outfall from the field in which it now is, and to their being thus placed in a condition of considerable difficulty.

I have on more than one occasion drawn the attention of the Council to the desirability of availing themselves of the provisions of the Public Health Amendment Act of 1890, by extending the operation of the urban powers which they possess in some parts of their district for controlling the erection of new houses, to all parts of it, and a code for the use of East Dean and Mitcheldean in particular has been under consideration for some time, but no definite action has been as yet taken in the matter.

Mr. Spence, the Surveyor to the Council, has supplied me with the following summary of work done in his department during the year :—

Plans for new houses in East Dean approved ... ..	5
Length of new sewers constructed ... ..	52 yards
" " water mains " ... ..	613 "
No. of premises supplied from Cinderford Waterworks	1402
Nett revenue derived from works after deducting voids and discounts...	£705

Mr. Spence states that these works are in good condition and that there is a fair supply of water at the springs. The same may be said of the Blakeney Hill works.

The Cinderford and Ruspidge sewers are also stated to be in good repair and clean, the outfall works in good order

and the effluent fairly clear. No complaints of any kind have been received during the year.

Mr. Ellis, the Sanitary Inspector for the district, thus reports on the work done in his department during the year :

HOUSE ACCOMMODATION :

Houses cleansed and whitewashed	...	...	...	18
,, repaired...	...	..	...	9
,, closed as unfit for habitation	..	...	...	2
Lodging-houses under inspection	...	...	...	4

CLOSET ACCOMMODATION :

New closets provided	...	...	...	...	18
Old " repaired and re-constructed	..	...	...	14	
" " cleansed and ventilated	...	...	...	105	

OTHER NUISANCES :

Offensive refuse removed	...	..	...	...	62
Pig nuisances abated	...	...	...	...	14
Ditches and cesspools cleansed		...	...	...	9
Defective water supply remedied		...	...	...	16
Dairies, cowsheds and milkshops under inspection	...				68
Slaughter-houses ditto	...	...	...	...	18

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# WESTBURY-ON-SEVERN

## URBAN DISTRICT COUNCIL

*Composition of District:* The Parish of Westbury-on-Severn.  
*Sanitary Inspector and Surveyor:* Mr. J. Cadle, Chaxhill,  
 Westbury.

*Area, 8206 Acres.*

*Population in ... 1891, 2,005.*

*Inhabited Houses „ 436.*

Sanitary matters dealt with at the monthly meetings of the Council.

### VITAL STATISTICS OF DISTRICT.

BIRTHS—						Highest No. in 22 years.	Lowest ditto.
Males	...	...	...	...	...	1895	
						27	48
Females	...	...	...	...	...	30	39
Total	...	...	...	...	...	57	87
Ratio of Births per 1000 of population	...	...	...	...	...	28.5	38.3
							21.0
DEATHS—							
Small Pox	...	...	...	...	...	0	1
Measles	...	...	...	...	...	0	3
Scarlatina	...	...	...	...	...	0	1
Croup and Diphtheria	...	...	...	...	...	0	7
Whooping Cough	...	...	...	...	...	0	5
Fever	...	...	...	...	...	0	2
Cholera, Diarrhœa, and Dysentery	...	...	...	...	...	0	5
Puerperal Fever	...	...	...	...	...	1	* —
Erysipelas	...	...	...	...	...	0	* —
Total Zymotic Deaths	...	...	...	...	...	1	10
Total Deaths from all causes	...	...	...	...	...	30†	47
Ratio of Deaths per 1000 of population	...	...	...	...	...	15.5	22.0
Deaths under 5 years of age	...	...	...	...	...	9	16

\* In previous Reports, Puerperal Fever and Erysipelas have been grouped together; it would be difficult to separate their *maxima* and *minima* for the last 22 years.

† This number is exclusive of 22 deaths which took place in the Union Workhouse located in this parish, but which belonged to other parishes.

## WESTBURY URBAN.

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### CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR

Diphtheria	...	..	...	..	...	...	1
Puerperal Fever	...	...	..	...	...	...	1

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THE vital statistics of this district for the past year, as in the case of most of its predecessors, present no feature of any particular interest. The smallness of the population, its scattered character, and the thoroughly rural nature of the district are sufficient to account for this. As has been frequently the case in previous years, not a single death from any form of zymotic disease has occurred, and only two cases have been notified during the year, one of Diphtheria and one of Puerperal Fever, neither of which calls for any notice here.

As a purely agricultural parish, the prosperity of Westbury is not increasing, and the work of sanitary supervision during the year has been chiefly confined to inspecting dilapidated dwellings with a view to their permanent closure, and inspecting others which are not dilapidated with the object of preventing their being overcrowded. In other respects the sanitary history of the year has been absolutely devoid of incident or interest.

### WESTBURY URBAN DISTRICT.

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The following list of matters dealt with in this district during the past year has been supplied by the Sanitary Inspector, Mr. J. Cadle, but was accidentally omitted in printing :—

- One new drain provided.
- One foul „, cleansed.
- Two cases of overcrowding abated.



# NEWNHAM

## URBAN DISTRICT COUNCIL.

*Composition of District:* The Town and Parish of Newnham.

*Sanitary Inspector:* Mr. W. Ellis.

*Area,* 1,937 acres.

*Population in 1891,* 1,401.

*Inhabited Houses, 1891,* 273.

Sanitary business transacted at monthly meeting of the Council.

### VITAL STATISTICS OF DISTRICT.

					1895.	Highest No. in 22 years.	Lowest ditto.
BIRTHS—							
Males	...	...	...	...	19	23	12
Females	...	...	...	...	13	26	12
Total	...	...	..	...	32	49	24
Ratio of Births per 1000 of population	...				22.8	33.3	17.2
DEATHS—							
Small Pox	...	...	...	...	0	5	0
Measles	...	..	...	...	0	2	0
Scarlatina	...	...	...	...	0	1	0
Croup and Diphtheria	...	...	...		0	1	0
Whooping Cough	...	...	...	...	2	2	0
Fever	...	...	...	...	0	1	0
Cholera, Diarrhoea, and Dysentery	...				0	2	0
Puerperal Fever	...	...	...	...	0	—	—
Erysipelas	...	...	...	...	0	—	—*
Total Zymotic Deaths	...	..	...		2	5	0
Total Deaths from all causes	...	...			18	29	13
Ratio of Deaths per 1000 of population	...				12.8	20.5	8.5
Deaths under 5 years of age	...	...			7	10	2

\* In previous years Puerperal Fever and Erysipelas were grouped together. It would be difficult to separate their *maxima* and *minima* during the previous 20 years.

## NEWNHAM URBAN.

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### CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR

Typhoid Fever                      ...                      ...                      ...                      1

THE death-rate for this district during the past year is a trifle above that of 1894, but is still only 12.8 per thousand. The zymotic mortality of the year has been limited to two deaths from Whooping Cough, and the only case of infectious sickness notified was one of Typhoid Fever in a lad living in a cottage on the outskirts of the parish. The case was not a serious one and was easily dealt with.

The sanitary history of the year presents little that calls for notice here. The most important incident in it is the publication of a proposal by Mr. Woods, an old and enterprising resident in the town of Newnham, to provide a supply of water for the town as a private undertaking. It is needless to say that so public-spirited a project, the expediency of which has been frequently discussed before but without practical result, was welcomed by the Council as an agreeable solution of a problem which they themselves were not prepared to attack, and there appears every probability of the town being thus furnished, at no distant date, with a supply of excellent water, derived from a spring in the hill behind it, at a height to give sufficient pressure to drive the water over the church tower. When this desirable object has been attained the question will arise : What effect will the increased flow of sewage which may be expected have upon the sewers of the town and upon the outfall into the river ? If the structure of the sewers is sufficiently good to stand the increased strain from the augmented bulk of the sewage there does not seem to be any likelihood of trouble from any other source, as the increased dilution of the sewage and the greater ease with which it will be removed from the sewers will help to prevent annoyance at the outfall.

With this addition to its resources Newnham will only need some one as enterprising as Mr. Woods to erect some convenient residences on sites, which are admirably suited for the purpose, behind the town, in order to develop it into an attractive resort as a residential town.

The report of work done in connection with the abatement of nuisances during the year by Mr. Ellis, the Sanitary Inspector, is as follows :—

Heaps of Manure removed	...	..	..	4
Dead horse	„	...	...	1
Houses whitewashed	...	...	...	11
Foul privies cleansed	...	...	...	17
Overcrowding abated	...	...	...	6
Foul drains cleansed	...	...	...	7
Registered Dairies inspected	...	...	...	1
Total				47

This represents a material improvement on the record of inspections for some years past.

I have, at different times, visited the slaughter-houses and other places calling for inspection in the town, and have pleasure in reporting that the work carried on by Mr. Ellis has been satisfactorily done.

# AWRE

## URBAN DISTRICT COUNCIL.

*Composition of District:* The Parish of Awre.

*Sanitary Inspector:* Mr. W. A. Willetts, Blakeney.

*Area,* 4,330 acres.

*Population in 1891,* 1179.

*Inhabited Houses (1891),* 259.

Sanitary business transacted at the monthly meetings of the Council.

### VITAL STATISTICS OF DISTRICT.

						1895.	Highest No. in 22 years.	Lowest ditto
BIRTHS—								
Males	...	...	...	...	...	10	25	9
Females	...	...	..	...	...	22	26	6
Total	...	...	...	...	...	32	46	20
Ratio of Births per 1000 of population						28.0	35.9	18.6
DEATHS—								
Small Pox and Chicken Pox	...	...				0	0	0
Measles	..	...	..	...	...	0	0	0
Scarlatina	...	..	...	...	...	0	3	0
Croup and Diphtheria	...	...				0	3	0
Whooping Cough	...	...	...	...	...	1	1	0
Fever	...	...	...	...	...	0	1	0
Cholera, Diarrhœa, and Dysentery	...					0	2	0
Puerperal Fever	..	...	...	...	...	0	2	0
Erysipelas	...	...	..	...	...	0	0	0
Total Deaths from Zymotic Affections						1	6	0
Total Deaths from all causes						19	33	12
Ratio of Deaths per 1000 of population						16.6	24.4	10.4
Deaths under 5 years of age						5	12	1

### CASES OF NOTIFIABLE DISEASE NOTIFIED DURING THE YEAR

Enteric Fever      ...      ...      ..      ...      4



## AWRE URBAN.

---

SO far as the records of mortality are concerned, the vital statistics of Awre present no more subject for comment this year than they have done for some years past, there being again an almost complete absence of zymotic mortality, and nothing of any special interest either in the birth or death rate.

But the uniformity which has generally distinguished the sanitary history of the year in this district was somewhat rudely disturbed in the month of June by the occurrence of four cases of Typhoid Fever in the town of Blakeney. Such an event has not happened within my experience, and it naturally caused much anxiety both to the inhabitants and to myself. My attention was first called to the subject by a notification of the illness of a young girl, the daughter of a butcher in the town, and on inquiring into this case I found that another case had occurred about the same time, in the person of a young man employed as a trade assistant in a shop a few doors below that of the butcher in question, but who lived just outside of the town and in the East Dean district. Shortly afterwards, the father of the child referred to succumbed to a similar attack, and about a week after that a second child, living in a house on the opposite side of the street, also fell ill in a similar way. The problem which naturally presented itself was this : here were four persons, living in a town which for years past has been quite free from any illness of this kind, attacked one after another in a way which, except upon the theory of mere coincidence, must have been due to some common cause. What was it? It could not have been contaminated water, for three out of the four drank water from different wells. Moreover, if in either case a polluted well had been the cause of the mischief, it is scarcely likely

that other persons, including children and young persons, living in each of the houses would have failed to show some evidence of being affected by it, which they did not. To add, an examination of the water used in each case showed no ground for suspicion. In default of any sufficient case against the water, an effort was made to indict other supposed sources of the mischief. In one case there were two closets in a rather confined yard, which were assumed to have had something to do with the attack; but these closets were in no different condition from what they had been in for many years past, and even if they had been a sufficient cause to account for one case, they could not have accounted for the others. In another case a drain was incriminated, but, so far as I could see, on insufficient evidence. In fact, in the absence of any satisfactory common cause for, at any rate, three of these cases, the fourth having probably resulted from direct infection from one of the others, I felt obliged to ask myself whether we had not to deal with some influence similar to that which has apparently been operating during the past two or three years in other parts of the district in producing outbreaks of a typhoid character which could not be connected with any obvious cause? It ought to be mentioned that in addition to these four cases, a fifth occurred in the person of a third child, living at some distance from either of the others, who was attacked in much the same way, and that any probability of the outbreak being due to contaminated milk could be excluded. It is scarcely necessary to say that all practicable precautions were prescribed by the medical attendant of the cases, and that no extension of the illness occurred, all the patients recovering. Thus ended, as abruptly as it had begun, an episode in the sanitary history of Blakeney which was as unprecedented as it may be hoped that it will continue to be unique.

Shortly after this outbreak a case of Enteric Fever was notified in Blakeney, but this was imported into the district

from Lydney and belongs to the history of that outbreak. Happily, no extension of the disease took place.

The local excitement produced by the outbreak had a very satisfactory result in one way : that it led to a careful overhauling of the closets, drains and other similar sanitary arrangements in the town by a committee of the District Council ; and though I am not aware that any very serious defects were discovered, a good many little matters were unearthed and set right, which cannot but have had a healthy effect on the committee themselves, in familiarising them with the general state of the town, and upon the inhabitants at large by directing their attention to shortcomings which are apt to go unnoticed except on a general visitation such as this.

One result of this visitation is doubtless shown in the increased number of matters dealt with in the summary of the work of inspection for the year supplied by Mr. W. A. Willetts, the Inspector for the district, which is as follows :—

DWELLING HOUSES :						
Cleansed and repaired	...	...	...	...	...	2
CLOSETS :						
New provided	..	...	...	...	...	2
Improper removed	..	...	..	...	...	1
Foul cleansed	...	...	...	...	...	24
New catch pits provided		...	...	...	...	2
Old ditto cemented	...	...	..	...	...	2
OTHER NUISANCES :						
Manure, ash-heaps and other refuse removed	...				...	8
Pig nuisances abated	...	..	...	...	...	4
Defective drains remedied		...	...	...	...	13
Drains flushed	...	...	...	...	...	14
Dead animal removed	..	...	...	...	...	1
Total						73
<hr/>						
Dairies, cowsheds and milkshops under inspection					...	24
Bakehouses	...	...	...	...	...	3
Slaughter-houses	...	...	...	...	...	3

Another result will, it is to be hoped, also follow, and that is that the Council will reconsider the resolution which they came to, some time ago, not to combine with the then

Westbury Rural Authority to maintain the Hospital at Soudley for the reception of such cases as those referred to above. For some years Awre has had no particular need of such an institution, but a time came, as it does always, sooner or later, in such cases, when the need arose, and then there was no provision to meet it. Fortunately, the outbreak in this instance was very manageable and ended as abruptly as it began ; but it does not do to count upon always having such good fortune ; and it is the duty of every Sanitary Authority to make reasonable provision for emergencies.





**APPENDIX. TABLE I.—SHOWING THE ACRES OF THE  
CONSTITUENT PARTS OF THE GLOUCESTERSHIRE.**

Sanitary District.	GLOUCESTERSHIRE.	
	Acreage.	Population. 1891.
East Dean Rural ... ..	28683	20401
Chipping Sodbury Rural ..	63284	16795
Chepstow Rural ... ..	...	...
Lydney „ ... ..	24634	8119
Cirencester „ ... ..	74297	11997
Gloucester „ ... ..	31547	11463
Tetbury „ ... ..	26215	3983
Cirencester Urban ... ..	2633	7441
Tetbury „ ... ..	105	2419
Westbury „ ... ..	8207	2005
Newnham „ ... ..	1937	1401
Awre „ ... ..	4330	1179
Total ... ..	265872	87203
Thornbury Rural* ... ..	56300	16765

\* This District, which for 15 years was included in the Combined

ATION, AND COUNTY DISTRIBUTION OF THE  
E COMBINED SANITARY DISTRICT.

HIRE.		MONMOUTHSHIRE.		TOTALS.	
Population.	Acreage.	Population.	Acreage.	Population.	
...	...	...	28683	20401	
...	...	...	63284	16795	
...	42818	7940	42818	7940	
...	...	...	24634	8119	
880	...	...	80934	12877	
...	...	...	31547	11463	
403	...	...	29450	4386	
...	...	...	2633	7441	
...	...	...	105	2419	
...	...	...	8207	2005	
...	...	...	1937	1401	
...	..	...	4330	1179	
1283	42818	7940	318562	96426	
...	...	...	56300	16765	

though now separate, has the same Medical Officer of Health







APPENDIX. TABLE II.—

			FLUCTUATION 1881					
			Area in Statute Acres.	Population in 1891.	No. of Acres to each Person.	POPULATION		
						Total increase in 10 years.	Total decrease in ditto.	Ratio of increase per 1000 of Population.
Westbury-on-Severn Union.	{	East Dean R. District Council ...	28,683	20,401	1.2	458	...	24
		Westbury-on-Severn U.     ,,     ,,	8,207	2,005	4.0	...	264	...
		Newnham     ,,     ,,	1,937	1,401	1.4	...	54	...
		Awre     ,,     ,,	4,330	1,179	5.3	...	31	...
Cirencester Union.	{	Cirencester R. {Glos.	74,297	11,997	6.1	...	608	...
		{Wilts	6,637	880	7	..	90	...
		U.     ,,	2,633	7,441	.34	...	217	...
Chipping Sodbury R.     ,,		63,284	16,795	3.7	...	708	...	
Chepstow Union.	{	Lydney R. {Glos.	24,634	8,119	3.0	(5)		
		Chepstow     ,, {Mon.	42,818	7,940	5.1			
Gloucester     ,,		31,547	11,463	2.7	1124	...	98	
Tetbury Union.	{	Tetbury     ,, {Glos.	26,215	3,983	6.9	(5)	(5)	
		{Wilts	3,235	403	8.0	(4)		
		U.     ,,	105	2,419	.04	...	246	...

- (1) Average of England and Wales for 1895 :—Birth-rate, 30.3 ; Deaths, 20.3.
- (2) The zymotic death-rate includes deaths from Small Pox, Measles, Cholera, Diarrhoea and Dysentery, Erysipelas and Puerperal Fever.
- (3) This is exclusive of deaths in the Union Workhouse (which is situated in the Parish of Awre).
- (4) These numbers are exclusive of that part of the Parish of Awre which is situated in the Parish of Tetbury.
- (5) I am unable to give the data for these spaces.

# AL STATISTICS OF DISTRICT.

M- N. Total decrease in ditto.	BIRTHS in 1895. (1)				DEATHS IN 1895. (1)				SPECIAL DEATH- RATES IN 1895.			
	Males.	Females.	TOTAL.	Ratio of Births per 1000 of Population.	Under 5 Years.	Above 5 Years.	TOTAL.	Ratio of Deaths per 1000 of Population.	Zymotic Death Rate		Infantile Death Rate	
									Gross Number. (2)	Ratio per 1000 of Population.	Gross Number of Deaths under 1 year	Ratio per 1000 of Births.
...	330	313	643	31.4	115	182	297	15.5	15	0.6	83	129
45	27	30	57	28.5	9	21	(3)30	15.5	1	.5	6	105
10	19	13	32	22.8	7	11	18	12.8	2	1.7	6	187
11	10	22	32	38.0	5	14	19	16.6	1	.8	3	93
70					60	153	213	17.5	12	.9	43	
5	163	151	314	24.2	7	13	20	22.7	1	1.1	5	152
...	81	76	157	20.9	29	84	113	15.0	8	.9	19	131
69	201	246	447	26.6	65	229	294	17.4	15	.9	32	72
	130	124	254	31.2	31	73	104	12.7	12	1.4	22	89
	114	100	214	26.9	23	91	114	14.3	6	0.7	17	79
..	125	154	279	23.5	38	82	120	10.1	11	1.0	28	100
(5)	49	40	89	22.2	21	52	73	18.2	1	0.24	14	98
	4	4	8	19.8	1	6	8	17.3	0	0	0	0
41	30	23	53	21.9	18	38	56	23.1	4	1.7	15	183
							(3)					

Diphtheria, Croup, Whooping Cough, Continued Fever of all kinds,  
 (an district) attributable to persons from outside the District.  
 ed to the Tetbury Rural District, for which I have not the necessary







APPENDIX. TABLE III.—A COMPARATIVE STATEMENT OF THE MORTALITY FOR THE YEAR 1895 FROM

SANITARY DISTRICT			At all Ages.	Under 1 year.	1 & under 5.	5 & under 15.	15 & under 25.	25 & under 65.	65 and over.	Classification by Age.	Small Pox &c.	
Westbury-on-Severn Union.	{	East Dean Rural ..	297	83	32	7	14	48	113	{ Under 5	0	
		Westbury-on-Severn } Urban	30	6	3	0	1	6	14	{ Above 5	0	
			Newnham ..	18	6	1	0	2	1	8	{ Under 5	0
		Awre ..	19	3	2	0	1	3	10	{ Above 5	0	
Cirencester Union.	{	Cirencester R. {	213	43	17	7	5	36	105	{ Under 5	0	
		{	20	5	2	0	0	1	12	{ Above 5	0	
		,, U. ...	113	19	10	2	6	24	52	{ Under 5	0	
Chipping Sodbury Rural ...			294	50	15	12	10	53	154	{ Above 5	0	
Chepstow Union	{	Lydney R. {	104	22	9	5	7	17	44	{ Under 5	0	
		{	114	17	6	2	5	29	55	{ Above 5	0	
Gloucester R. ...			120	28	10	10	6	22	44	{ Under 5	0	
Tetbury Union.	{	Tetbury R. {	Glos.	73	14	7	3	1	20	28	{ Above 5	0
			{	8	0	1	0	2	2	3	{ Under 5	0
		,, U. ...	56	15	3	0	1	11	26	{ Above 5	0	
Total ...			1479	311	118	48	61	273	668	{ Under 5	0	

DIFFERENT AGES AND FROM CERTAIN SPECIFIED CAUSES IN THE GLOUCESTERSHIRE COMBINED DISTRICT

Continued Fevers.														
Typhus.	Enteric.	Other or doubtful sorts.	Erysipelas.	Puerperal Fever.	Measles.	Whooping Cough.	Diarrhoea, Dysentery, and Cholera.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries and Operations.	Other Diseases.	Total.
0	0	0	0	0	0	1	0	1	3	20	1	1	86	115
0	1	0	0	0	0	0	0	3	17	26	21	4	108	182
0	0	0	0	0	0	2	0	0	0	2	0	0	5	9
0	0	0	0	1	0	0	0	0	2	2	1	0	15	21
0	0	0	0	0	0	2	0	0	0	1	0	0	3	6
0	0	0	0	0	0	0	0	0	1	2	1	0	5	9
0	0	0	0	0	0	1	0	0	0	0	0	0	4	5
0	0	0	0	0	0	0	0	0	1	2	3	0	8	14
0	0	0	0	0	0	8	0	0	0	19	1	1	31	60
0	3	0	0	1	0	0	0	1	0	14	32	4	98	153
0	0	0	0	0	0	0	0	0	0	3	0	0	4	7
0	0	0	0	0	0	0	1	0	1	2	3	0	6	13
0	0	0	0	0	1	5	2	0	0	4	0	1	16	29
0	0	0	0	0	0	0	0	0	5	10	13	3	53	84
0	0	0	0	0	0	4	3	0	0	8	1	1	46	65
0	1	1	0	0	0	0	4	1	7	39	43	6	127	229
0	0	0	0	0	0	1	0	0	0	8	0	0	20	31
0	8	0	0	0	0	0	1	0	2	9	7	2	44	73
0	0	0	0	0	0	0	2	0	0	5	0	0	16	23
0	2	0	0	1	0	0	1	0	7	12	15	0	43	81
0	0	0	0	0	1	1	3	0	0	0	0	0	32	38
0	1	0	0	0	0	0	1	0	7	9	9	6	46	82
0	0	0	0	0	0	1	0	0	0	8	0	0	12	21
0	0	0	0	0	0	1	0	0	5	15	2	2	26	52
0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	1	0	1	5	7
0	0	0	0	0	0	1	1	0	1	1	0	0	13	18
0	0	0	0	1	0	0	0	0	1	5	5	1	25	38
0	0	0	0	4	2	29	19	6	60	227	158	33	797	1366

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**APPENDIX. TABLE IV.—NEW CASES OF INFECTIOUS SICKNESS  
OF HEALTH DURING THE YEAR 1895 IN THE DISTRICTS  
CLASSIFIED ACCORDING TO SUB-DISTRICT.**

SUB-DISTRICT.				POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	New Cases.
				Census, 1891.	Estimated to middle of 1895.			
Cirencester R.	...	{	Glos.	11997	11850	314	{ Under 5	...
		{	Wilts	880	870		{ Above 5	...
„ U.	...			7441	*	157	{ Under 5	...
							{ Above 5	...
East Dean R.	...			20401	20500	643	{ Under 5	...
							{ Above 5	...
Westbury U.	...			2005	1950	57	{ Under 5	...
							{ Above 5	...
Newnham „	...			1401	1390	32	{ Under 5	...
							{ Above 5	...
Awre „	...			1179	1140	32	{ Under 5	...
							{ Above 5	...
Chipping Sodbury R.	...			16795	16430	447	{ Under 5	...
							{ Above 5	...
Lydney R.	...		Glos.	8119	8424	254	{ Under 5	...
							{ Above 5	...
Chepstow „	...		Mon.	7940	8117	214	{ Under 5	...
							{ Above 5	...
Gloucester „	...			11463	11993	279	{ Under 5	...
							{ Above 5	...
Tetbury R.	...	{	Glos.	3983	3075	90	{ Under 5	...
		{	Wilts	403	390	8	{ Above 5	...
„ U.	...			2419	2353	53	{ Under 5	...
							{ Above 5	...
						Totals	{ Under 5	...
							{ Above 5	...

NOTE.—No cases were Notified under the

\* For a reason which is not easy to explain the population of the U. scarcely likely that any decrease has taken place since the latter

COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER  
 OF THE CIRENCESTER SANITARY DISTRICT,  
 BY AGES AND LOCALITIES.

SICKNESS IN EACH LOCALITY, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.						NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.			
3	4	5	6	7	8	1	2	3	4
Diphtheria.	Membranous Croup.	Enteric or Typhoid Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Smallpox.	Scarlatina.	Diphtheria.	Enteric or Typhoid Fever.
...	...	...	...	...	...	...	2	...	...
1	...	5	...	...	4	...	7	1	...
...	...	...	...	...	1	...	1	...	...
...	...	...	...	...	...	...	3	...	...
...	...	...	...	...	...	...	1	...	...
2	...	2	...	...	5	...	16	1	2
...	...	...	...	...	...	...	...	...	...
4	...	5	...	...	20	...	...	...	...
...	...	...	...	...	...	No hospital available in district			
1	...	...	...	1	...				
...	...	...	...	...	...				
...	...	1	...	...	...				
...	...	...	...	...	...	...	"	"	...
...	...	4	...	...	...	...	"	"	...
5	...	...	...	...	...	...	"	"	...
8	...	6	1	...	9	...	"	"	...
2	1	...	...	...	...	...	"	"	...
...	...	29	...	...	1	...	"	"	...
...	1	...	...	...	...	...	"	"	...
1	...	6	...	...	...	...	"	"	...
1	...	...	...	...	...	...	"	"	...
6	...	3	...	1	7	...	"	"	...
...	...	...	...	...	...	...	"	"	...
...	...	...	...	...	...	...	"	"	...
...	...	...	...	...	...	...	"	"	...
...	...	...	...	...	...	...	"	"	...
...	...	...	...	...	...	...	"	"	...
8	2	0	0	0	1	...	4	0	0
3	0	61	1	2	46	...	26	2	2

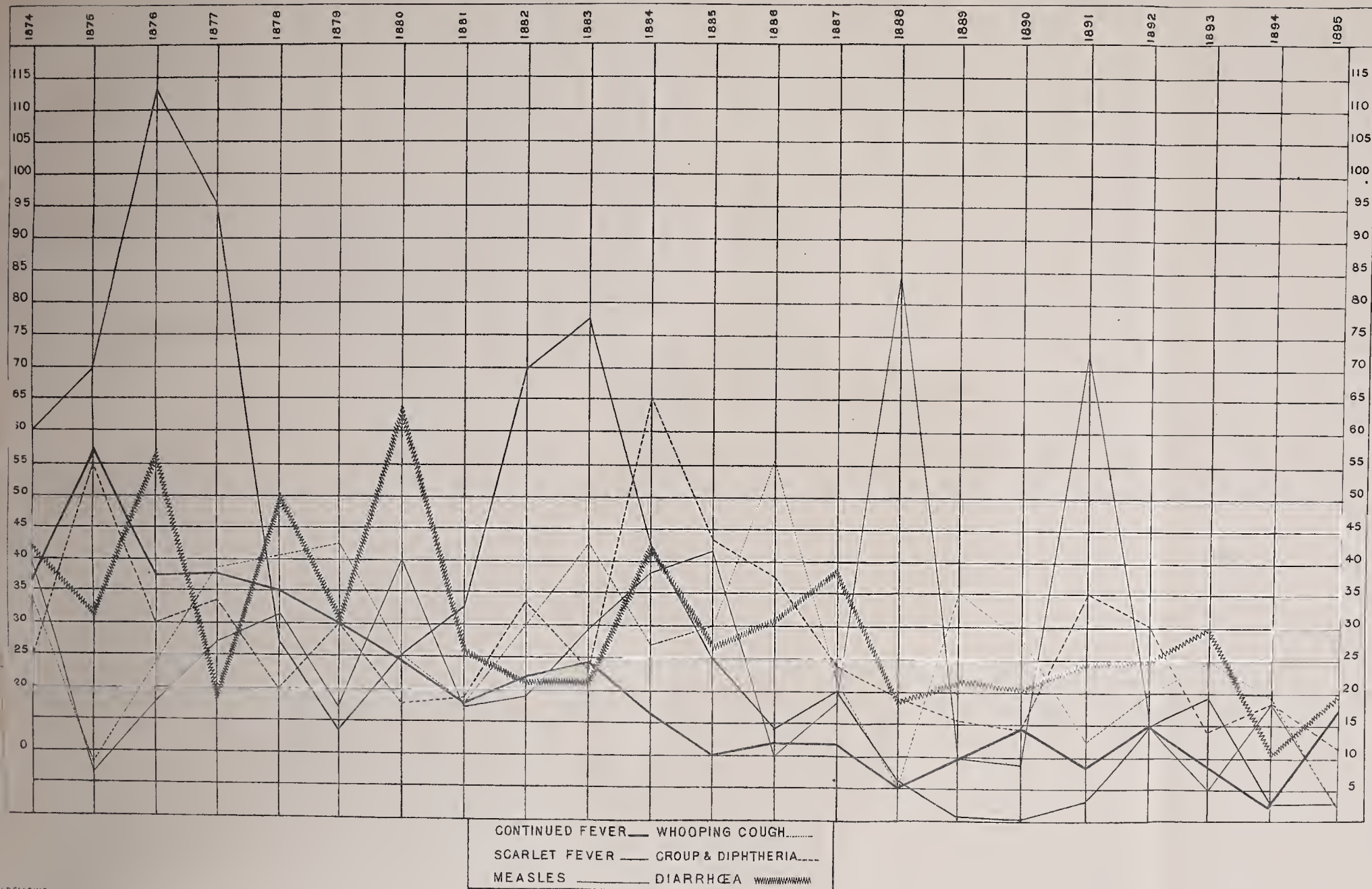
us or of Relapsing Fever, or of Cholera.  
 of Cirencester decreased by 217 between 1881 and 1891, but it is





*ERRATUM.*—The Lithographer has, by an error, represented the line of Whooping Cough for 1895 as showing a mortality of only 3, whereas it should be 29.

DIAGRAM SHOWING THE FLUCTUATIONS OF MORTALITY FROM THE MORE COMMON INFECTIOUS DISEASES IN THE GLOUCESTERSHIRE COMBINED DISTRICT SINCE 1874



3, BEAUFORT BUILDINGS,  
GLOUCESTER,

Dear

189

Medicines of the British  
Medical Association with  
St Bond's compliments.

( Dispatch of the accompanying  
copy was accidentally overlooked until  
now )

